GenCore version 5.1.4_p5_4578
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OM protein - protein search, using sw model

Run on: April 21, 2003, 12:06:35 ; Search time 15 Seconds
(without alignments)
82.384 Million cell updates/sec

Title: US-09-580-018-42
Perfect score: 217
Sequence: 1 DAEFRHDSGYEVHHQKLVFF.....DVGSNKGAIIGLMVGGVVIA 42

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 262574 seqs, 29422922 residues

Total number of hits satisfying chosen parameters: 262574

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : Issued_Patents_AA:*
1: /cgn2_6/ptodata/1/iaa/5A_COMB.pep:*
2: /cgn2_6/ptodata/1/iaa/5B_COMB.pep:*
3: /cgn2_6/ptodata/1/iaa/6A_COMB.pep:*
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6: /cgn2_6/ptodata/1/iaa/backfiles1.pep:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	217	100.0	42	1	US-07-744-767A-2	Sequence 2, Appli
2	217	100.0	42	1	US-08-179-574-1	Sequence 1, Appli
3	217	100.0	42	1	US-08-347-144-1	Sequence 1, Appli
4	217	100.0	42	1	US-08-462-859A-19	Sequence 19, Appl
5	217	100.0	42	1	US-08-123-659A-19	Sequence 19, Appl
6	217	100.0	42	1	US-08-464-247A-19	Sequence 19, Appl
7	217	100.0	42	1	US-08-464-248A-19	Sequence 19, Appl
8	217	100.0	42	1	US-08-476-464A-1	Sequence 1, Appli
9	217	100.0	42	1	US-08-304-585-2	Sequence 2, Appli
10	217	100.0	42	1	US-08-302-808-5	Sequence 5, Appli
11	217	100.0	42	1	US-08-268-348A-1	Sequence 1, Appli
12	217	100.0	42	2	US-08-433-734-2	Sequence 2, Appli
13	217	100.0	42	2	US-08-609-090-9	Sequence 9, Appli
14	217	100.0	42	2	US-07-737-371E-72	Sequence 72, Appl
15	217	100.0	42	2	US-08-422-333-4	Sequence 4, Appli
16	217	100.0	42	2	US-08-682-245A-4	Sequence 4, Appli
17	217	100.0	42	2	US-08-986-948-5	Sequence 5, Appli
18	217	100.0	42	3	US-08-717-551A-2	Sequence 2, Appli
19	217	100.0	42	4	US-09-388-890-1	Sequence 1, Appli
20	217	100.0	42	4	US-09-005-215-20	Sequence 20, Appl
21	217	100.0	42	4	US-09-242-724-23	Sequence 23, Appl
22	217	100.0	42	4	US-08-922-930-2	Sequence 2, Appli
23	217	100.0	42	5	PCT-US92-06700-2	Sequence 2, Appli
24	217	100.0	42	5	PCT-US93-00325-1	Sequence 1, Appli
25	217	100.0	43	1	US-08-235-400-1	Sequence 1, Appli
26	217	100.0	43	1	US-08-437-067-1	Sequence 1, Appli
27	217	100.0	43	1	US-08-302-808-6	Sequence 6, Appli
28	217	100.0	43	1	US-08-079-511-1	Sequence 1, Appli
29	217	100.0	43	1	US-08-467-607-1	Sequence 1, Appli
30	217	100.0	43	2	US-08-404-831-1	Sequence 1, Appli
31	217	100.0	43	2	US-08-602-264A-3	Sequence 3, Appli
32	217	100.0	43	2	US-08-469-362-1	Sequence 1, Appli
33	217	100.0	43	2	US-08-612-785B-1	Sequence 1, Appli
34	217	100.0	43	2	US-08-475-579A-1	Sequence 1, Appli
35	217	100.0	43	2	US-08-850-392-1	Sequence 1, Appli
36	217	100.0	43	2	US-07-737-371E-70	Sequence 70, Appl
37	217	100.0	43	2	US-08-986-948-6	Sequence 6, Appli
38	217	100.0	43	2	US-08-975-977-1	Sequence 1, Appli
39	217	100.0	43	2	US-08-817-423-1	Sequence 1, Appli
40	217	100.0	43	2	US-08-920-162A-1	Sequence 1, Appli
41	217	100.0	43	3	US-08-461-018A-3	Sequence 3, Appli
42	217	100.0	43	3	US-08-976-191-1	Sequence 1, Appli
43	217	100.0	43	3	US-08-976-179-1	Sequence 1, Appli
44	217	100.0	43	4	US-09-216-958-3	Sequence 3, Appli
45	217	100.0	43	4	US-09-356-931-1	Sequence 1, Appli

ALIGNMENTS

RESULT 1
US-07-744-767A-2
; Sequence 2, Application US/07744767A
; Patent No. 5434050
; GENERAL INFORMATION:
; APPLICANT: Maggio, John E.
; APPLICANT: Mantyh, Patrick W.
; TITLE OF INVENTION: Labelled -Amyloid Peptide and Methods
; TITLE OF INVENTION: for Use in Detecting Alzheimer's Disease
; NUMBER OF SEQUENCES: 3
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Schwegman, Lundberg & Woessner, P.A.
; STREET: 3500 IDS Center
; CITY: Minneapolis
; STATE: MN
; COUNTRY: USA
; ZIP: 55402
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/07/744,767A
; FILING DATE: 13-AUG-1991
; CLASSIFICATION: 435
; ATTORNEY/AGENT INFORMATION:
; NAME: Mueting, Ann M.
; REGISTRATION NUMBER: 33,977
; REFERENCE/DOCKET NUMBER: 600.226-US-01
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 612-339-0331
; TELEFAX: 612-339-3061
; INFORMATION FOR SEQ ID NO: 2:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 42 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: peptide
US-07-744-767A-2

Query Match 100.0%; Score 217; DB 1; Length 42;
Best Local Similarity 100.0%; Pred. No. 4e-26;
Matches 42; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Db       1 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 42
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RESULT 2
US-08-179-574-1
; Sequence 1, Application US/08179574
; Patent No. 5506097
;  GENERAL INFORMATION:
;    APPLICANT: Huntington Potter
;    APPLICANT: Usamah Kayyali
;    TITLE OF INVENTION: Compounds and Methods for Inhibiting
;    NUMBER OF SEQUENCES: 6
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE: Hamilton, Brook, Smith & Reynolds, P.C.
;      STREET: Two Militia Drive
;      CITY: Lexington
;      STATE: Massachusetts
;      COUNTRY: U.S.A.
;      ZIP: 02173
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE: Floppy disk
;      COMPUTER: IBM PC compatible
;      OPERATING SYSTEM: PC-DOS/MS-DOS
;      SOFTWARE: PatentIn Release #1.0, Version #1.25
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER: US/08/179,574
;      FILING DATE:
;      CLASSIFICATION: 514
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER: US 07/819,361
;      FILING DATE: 13-JAN-1992
;    ATTORNEY/AGENT INFORMATION:
;      NAME: Granahan, Patricia
;      REGISTRATION NUMBER: 32,227
;      REFERENCE/DOCKET NUMBER: HU90-03A3
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE: 617-861-6240
;      TELEFAX: 617-861-9540
;  INFORMATION FOR SEQ ID NO: 1:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH: 42 amino acids
;      TYPE: amino acid
;      TOPOLOGY: linear
US-08-179-574-1

  Query Match             100.0%;  Score 217;  DB 1;  Length 42;
  Best Local Similarity   100.0%;  Pred. No. 4e-26;
  Matches   42;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

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           ||||||||||||||||||||||||||||||||||||||||||
Db       1 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 42


RESULT 3
US-08-347-144-1
; Sequence 1, Application US/08347144
; Patent No. 5589154
;  GENERAL INFORMATION:
;    APPLICANT: ANDERSON, STEPHEN
;    TITLE OF INVENTION: METHODS FOR THE PREVENTION AND TREATMENT
;    TITLE OF INVENTION: OF VASCULAR HEMORRHAGING AND ALZHEIMER'S DISEASE
;    NUMBER OF SEQUENCES: 1
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE: HOWREY & SIMON
;      STREET: 1299 PENNSYLVANIA AVENUE, N.W.
;      CITY: WASHINGTON
;      STATE: D.C.
;      COUNTRY: US
;      ZIP: 20004
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE: Floppy disk
;      COMPUTER: IBM PC compatible
;      OPERATING SYSTEM: PC-DOS/MS-DOS
;      SOFTWARE: PatentIn Release #1.0, Version #1.25
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER: US/08/347,144
;      FILING DATE:
;      CLASSIFICATION: 514
;    ATTORNEY/AGENT INFORMATION:
;      NAME: AUERBACH, JEFFREY I.
;      REGISTRATION NUMBER: 32,680
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE: (202) 383-7451
;      TELEFAX: (202) 383-6610
;  INFORMATION FOR SEQ ID NO: 1:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH: 42 amino acids
;      TYPE: amino acid
;      TOPOLOGY: linear
;    MOLECULE TYPE: peptide
;    HYPOTHETICAL: NO
;    FRAGMENT TYPE: N-terminal
;    ORIGINAL SOURCE:
;      ORGANISM: AMYLOID PEPTIDE
US-08-347-144-1

  Query Match             100.0%;  Score 217;  DB 1;  Length 42;
  Best Local Similarity   100.0%;  Pred. No. 4e-26;
  Matches   42;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 42
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Db       1 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 42


RESULT 4
US-08-462-859A-19
; Sequence 19, Application US/08462859A
; Patent No. 5652092
;  GENERAL INFORMATION:
;    APPLICANT: Jacobsen, J. S.
;    APPLICANT: Vitek, M. P.
;    TITLE OF INVENTION: No. 5652092el Amyloid Precursor and Method of
;    TITLE OF INVENTION: Using Same to Access Agents Which Down-Regulate Formation
;    TITLE OF INVENTION: of B-Amyloid Peptide
;    NUMBER OF SEQUENCES: 19
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE: American Cyanamid Company
;      STREET: One Cyanamid Plaza
;      CITY: Wayne
;      STATE: New Jersey
;      COUNTRY: United States
;      ZIP: 07470-8426
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE: Floppy disk
;      COMPUTER: IBM PC compatible
;      OPERATING SYSTEM: PC-DOS/MS-DOS
;      SOFTWARE: PatentIn Release #1.0, Version #1.30
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER: US/08/462,859A
;      FILING DATE: 05-JUN-1995
;      CLASSIFICATION: 435
;    ATTORNEY/AGENT INFORMATION:
;      NAME: Barnhard, Elizabeth M.
;      REGISTRATION NUMBER: 31,088
;      REFERENCE/DOCKET NUMBER: 31,844-04
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE: (201)831-3246
;      TELEFAX: (201)831-3305
;  INFORMATION FOR SEQ ID NO: 19:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH: 42 amino acids
;      TYPE: amino acid
;      STRANDEDNESS:
;      TOPOLOGY: linear
;    MOLECULE TYPE: protein
US-08-462-859A-19
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  Query Match           100.0%;  Score 217;  DB 1;  Length 42;
  Best Local Similarity  100.0%;  Pred. No. 4e-26;
  Matches   42;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 42
          |||||||||||||||||||||||||||||||||||||||||||
Db      1 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 42


RESULT 5
US-08-123-659A-19
; Sequence 19, Application US/08123659A
; Patent No. 5656477
;  GENERAL INFORMATION:
;    APPLICANT:  Jacobsen, J. S.
;    APPLICANT:  Vitek, M. P.
;    TITLE OF INVENTION:  No. 5656477el Amyloid Precursor and Method of
;    TITLE OF INVENTION:  Using Same to Access Agents Which Down-Regulate Formation
;    TITLE OF INVENTION:  of B-Amyloid Peptide
;    NUMBER OF SEQUENCES:  19
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Anne Rosenblum
;      STREET:  163 Delaware Avenue, Suite 212
;      CITY:  Delmar
;      STATE:  New York
;      COUNTRY:  U.S.A.
;      ZIP:  12054
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.25
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/123,659A
;      FILING DATE:  20-SEP-1993
;      CLASSIFICATION:  435
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Rosenblum, Anne M.
;      REGISTRATION NUMBER:  30,419
;      REFERENCE/DOCKET NUMBER:  31,844-01
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (518)475-0611
;      TELEFAX:  (518)475-0619
;  INFORMATION FOR SEQ ID NO:  19:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  42 amino acids
;      TYPE:  amino acid
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  protein
US-08-123-659A-19

  Query Match           100.0%;  Score 217;  DB 1;  Length 42;
  Best Local Similarity  100.0%;  Pred. No. 4e-26;
  Matches   42;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 42
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Db      1 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 42


RESULT 6
US-08-464-247A-19
; Sequence 19, Application US/08464247A
; Patent No. 5693478
;  GENERAL INFORMATION:
;    APPLICANT:  Jacobsen, J. S.
;    APPLICANT:  Vitek, M. P.
;    TITLE OF INVENTION:  No. 5693478el Amyloid Precursor and Method of
;    TITLE OF INVENTION:  Using Same to Access Agents Which Down-Regulate Formation
;    TITLE OF INVENTION:  of B-Amyloid Peptide
;    NUMBER OF SEQUENCES:  19
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  American Cyanamid Company
;      STREET:  One Campus Drive
;      CITY:  Parsippany
;      STATE:  New Jersey
;      COUNTRY:  United States
;      ZIP:  07054
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.30
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/464,247A
;      FILING DATE:  05-JUN-1995
;      CLASSIFICATION:  435
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Barnhard, Elizabeth M.
;      REGISTRATION NUMBER:  31,088
;      REFERENCE/DOCKET NUMBER:  31,844-03
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  201-683-2158
;      TELEFAX:  201-683-4117
;  INFORMATION FOR SEQ ID NO:  19:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  42 amino acids
;      TYPE:  amino acid
;      STRANDEDNESS:
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  protein
US-08-464-247A-19

  Query Match           100.0%;  Score 217;  DB 1;  Length 42;
  Best Local Similarity  100.0%;  Pred. No. 4e-26;
  Matches   42;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 42
          |||||||||||||||||||||||||||||||||||||||||||
Db      1 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 42


RESULT 7
US-08-464-248A-19
; Sequence 19, Application US/08464248A
; Patent No. 5703209
;  GENERAL INFORMATION:
;    APPLICANT:  Jacobsen, J. S.
;    APPLICANT:  Vitek, M. P.
;    TITLE OF INVENTION:  No. 5703209el Amyloid Precursor and Method of
;    TITLE OF INVENTION:  Using Same to Access Agents Which Down-Regulate Formation
;    TITLE OF INVENTION:  of B-Amyloid Peptide
;    NUMBER OF SEQUENCES:  19
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  American Cyanamid Company
;      STREET:  One Cyanamid Plaza
;      CITY:  Wayne
;      STATE:  New Jersey
;      COUNTRY:  United States
;      ZIP:  07470-8426
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.30
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/464,248A
;      FILING DATE:  05-JUN-1995
;      CLASSIFICATION:  435
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Barnhard, Elizabeth M.
;      REGISTRATION NUMBER:  31,088
;      REFERENCE/DOCKET NUMBER:  31,844-02
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (201)831-3246
;      TELEFAX:  (201)831-3305
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;  INFORMATION FOR SEQ ID NO:  19:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  42 amino acids
;      TYPE:  amino acid
;      STRANDEDNESS:  ;
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  protein
US-08-464-248A-19

  Query Match             100.0%;  Score 217;  DB 1;  Length 42;
  Best Local Similarity   100.0%;  Pred. No. 4e-26;
  Matches   42;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 42
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Db       1 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 42


RESULT 8
US-08-476-464A-1
; Sequence 1, Application US/08476464A
; Patent No. 5707821
;  GENERAL INFORMATION:
;    APPLICANT:  RYDEL, RUSSELL E.
;    APPLICANT:  DAPPEN, MICHAEL S.
;    TITLE OF INVENTION:  THERAPEUTIC INHIBITION OF PHOSPHOLIPASE
;    TITLE OF INVENTION:  A2 IN A-BETA PEPTIDE-MEDIATED NEURODEGENERATIVE DISEASE
;    NUMBER OF SEQUENCES:  2
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  TOWNSEND & TOWNSEND & CREW LLP
;      STREET:  TWO EMBARCADERO CENTER, 8TH FLOOR
;      CITY:  SAN FRANCISCO
;      STATE:  CALIFORNIA
;      COUNTRY:  U.S.A.
;      ZIP:  94111-3834
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.30
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/476,464A
;      FILING DATE:  07-JUN-1995
;      CLASSIFICATION:  514
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  STORELLA, JOHN R.
;      REGISTRATION NUMBER:  32,944
;      REFERENCE/DOCKET NUMBER:  15270-002300
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (415)326-2400
;      TELEFAX:  (415)576-0300
;  INFORMATION FOR SEQ ID NO:  1:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  42 amino acids
;      TYPE:  amino acid
;      STRANDEDNESS:
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  peptide
US-08-476-464A-1

  Query Match             100.0%;  Score 217;  DB 1;  Length 42;
  Best Local Similarity   100.0%;  Pred. No. 4e-26;
  Matches   42;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 42
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Db       1 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 42


RESULT 9
US-08-304-585-2
, Sequence 2, Application US/08304585
, Patent No. 5721106
;  GENERAL INFORMATION:
;    APPLICANT:  Maggio, John E.
;    APPLICANT:  Mantyh, Patrick W.
;    TITLE OF INVENTION:  LABELLED BETA-AMYLOID PEPTIDE AND
;    TITLE OF INVENTION:  METHODS FOR USE IN DETECTING ALZHEIMER'S DISEASE
;    NUMBER OF SEQUENCES:  12
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Mueting, Raasch, Gebhardt & Schwappach, P.A.
;      STREET:  P.O. Box 581415
;      CITY:  Minneapolis
;      STATE:  MN
;      COUNTRY:  USA
;      ZIP:  55458-1415
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.30
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/304,585
;      FILING DATE:  12-SEP-1994
;      CLASSIFICATION:  435
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Mueting, Ann M.
;      REGISTRATION NUMBER:  33,977
;      REFERENCE/DOCKET NUMBER:  110.00010120
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  612-305-1217
;      TELEFAX:  612-305-1228
;  INFORMATION FOR SEQ ID NO:  2:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  42 amino acids
;      TYPE:  amino acid
;      STRANDEDNESS:  not relevant
;      TOPOLOGY:  not relevant
;    MOLECULE TYPE:  peptide
US-08-304-585-2

  Query Match             100.0%;  Score 217;  DB 1;  Length 42;
  Best Local Similarity   100.0%;  Pred. No. 4e-26;
  Matches   42;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 42
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Db       1 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 42


RESULT 10
US-08-302-808-5
; Sequence 5, Application US/08302808
; Patent No. 5750349
;  GENERAL INFORMATION:
;    APPLICANT:  SUZUKI, No. 5750349uhiro
;    APPLICANT:  ODAKA, Asano
;    APPLICANT:  KITADA, Chieko
;    TITLE OF INVENTION:  ANTIBODIES TO B-AMYLOIDS OR THEIR
;    TITLE OF INVENTION:  DERIVATIVES AND USE THEREOF
;    NUMBER OF SEQUENCES:  14
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  DIKE, BRONSTEIN, ROBERTS & CUSHMAN
;      STREET:  130 WATER STREET
;      CITY:  BOSTON
;      STATE:  MA
;      COUNTRY:  USA
;      ZIP:  02019
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Diskette
;      COMPUTER:  IBM Compatible
;      OPERATING SYSTEM:  DOS
;      SOFTWARE:  FastSEQ Version 1.5
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/302,808
;      FILING DATE:  15-SEP-1994
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;      CLASSIFICATION:  435
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  PCT/JP94/00089
;      FILING DATE:  24-JAN-1994
;      APPLICATION NUMBER:  010132/1993
;      FILING DATE:  25-JAN-1993
;      APPLICATION NUMBER:  019035/1993
;      FILING DATE:  05-FEB-1993
;      APPLICATION NUMBER:  286985/1993
;      FILING DATE:  16-NOV-1993
;      APPLICATION NUMBER:  334773/1993
;      FILING DATE:  28-DEC-1993
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  DAVID, RESNICK S
;      REGISTRATION NUMBER:  34,235
;      REFERENCE/DOCKET NUMBER:  44631
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  617-523-3400
;      TELEFAX:  617-523-6440
;      TELEX:  200291 STRE
;  INFORMATION FOR SEQ ID NO:  5:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  42 amino acids
;      TYPE:  amino acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  peptide
;    HYPOTHETICAL:  NO
;    ANTI-SENSE:  NO
;    FRAGMENT TYPE:  N-terminal
;    ORIGINAL SOURCE:
US-08-302-808-5

  Query Match             100.0%;  Score 217;  DB 1;  Length 42;
  Best Local Similarity   100.0%;  Pred. No. 4e-26;
  Matches   42;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 42
          ||||||||||||||||||||||||||||||||||||||||||
Db      1 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 42


RESULT 11
US-08-268-348A-1
; Sequence 1, Application US/08268348A
; Patent No. 5750374
;  GENERAL INFORMATION:
;    APPLICANT:  Dobeli, Heinz
;    APPLICANT:  Draeger, Nicholas
;    APPLICANT:  Trottman, Gerda H
;    APPLICANT:  Jakob, Peter
;    APPLICANT:  Stuber, Dietrich
;    TITLE OF INVENTION:  Process for Producing Hydrophobic
;    TITLE OF INVENTION:  Polypeptides and Proteins, and Fusion Proteins for Use in
;    TITLE OF INVENTION:  Producing Same
;    NUMBER OF SEQUENCES:  12
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Hoffmann-La Roche Inc.
;      STREET:  340 Kingsland Street
;      CITY:  Nutley
;      STATE:  New Jersey
;      COUNTRY:  U.S.A.
;      ZIP:  07110
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.25
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/268,348A
;      FILING DATE:  29-JUN-1994
;      CLASSIFICATION:  435
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  EP 93110755.1
;      FILING DATE:  06-JUL-1993
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Parise, John P.
;      REGISTRATION NUMBER:  34,403
;      REFERENCE/DOCKET NUMBER:  4105/157
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (201) 235-6326
;      TELEFAX:  (201) 235-3500
;  INFORMATION FOR SEQ ID NO:  1:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  42 amino acids
;      TYPE:  amino acid
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  peptide
;    FRAGMENT TYPE:  N-terminal
US-08-268-348A-1

  Query Match             100.0%;  Score 217;  DB 1;  Length 42;
  Best Local Similarity   100.0%;  Pred. No. 4e-26;
  Matches   42;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 42
          ||||||||||||||||||||||||||||||||||||||||||
Db      1 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 42


RESULT 12
US-08-433-734-2
; Sequence 2, Application US/08433734
; Patent No. 5837473
;  GENERAL INFORMATION:
;    APPLICANT:  Maggio, John E.
;    APPLICANT:  Mantyh, Patrick W.
;    TITLE OF INVENTION:  Labelled  -Amyloid Peptide and Methods
;    TITLE OF INVENTION:  for Use in Detecting Alzheimer's Disease
;    NUMBER OF SEQUENCES:  3
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Mueting, Raasch, Gebhardt & Schwappach, P.A.
;      STREET:  P.O. Box 581415
;      CITY:  Minneapolis
;      STATE:  MN
;      COUNTRY:  USA
;      ZIP:  55458-1415
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.25
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/433,734
;      FILING DATE:  03-MAY-1995
;      CLASSIFICATION:  435
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Mueting, Ann M.
;      REGISTRATION NUMBER:  33,977
;      REFERENCE/DOCKET NUMBER:  110.00010102
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  612-305-1220
;      TELEFAX:  612-305-1228
;  INFORMATION FOR SEQ ID NO:  2:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  42 amino acids
;      TYPE:  amino acid
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  peptide
US-08-433-734-2

  Query Match             100.0%;  Score 217;  DB 2;  Length 42;
  Best Local Similarity   100.0%;  Pred. No. 4e-26;
  Matches   42;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 42
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Db       1 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 42


RESULT 13
US-08-609-090-9
; Sequence 9, Application US/08609090
; Patent No. 5840838
;  GENERAL INFORMATION:
;     APPLICANT:  HENSLEY, Kenneth
;     APPLICANT:  BUTTERFIELD, D. A.
;     APPLICANT:  CARNEY, John M.
;     APPLICANT:  AKSENOV, Michael
;     TITLE OF INVENTION:  A PROCESS FOR ENHANCING THE ACTIVITY OF
;     TITLE OF INVENTION:  AN OLIGOPEPTIDE OR POLYPEPTIDES
;     NUMBER OF SEQUENCES:  11
;     CORRESPONDENCE ADDRESS:
;       ADDRESSEE:  LOWE PRICE LEBLANC & BECKER
;       STREET:  99 Canal Center Plaza, Suite 300
;       CITY:  Alexandria
;       STATE:  Virginia
;       COUNTRY:  USA
;       ZIP:  22314
;     COMPUTER READABLE FORM:
;       MEDIUM TYPE:  Floppy disk
;       COMPUTER:  IBM PC compatible
;       OPERATING SYSTEM:  PC-DOS/MS-DOS
;       SOFTWARE:  PatentIn Release #1.0, Version #1.30
;     CURRENT APPLICATION DATA:
;       APPLICATION NUMBER:  US/08/609,090
;       FILING DATE:  29-FEB-1996
;       CLASSIFICATION:  530
;     ATTORNEY/AGENT INFORMATION:
;       NAME:  Kraus, Eric J.
;       REGISTRATION NUMBER:  36,190
;       REFERENCE/DOCKET NUMBER:  434-059
;     TELECOMMUNICATION INFORMATION:
;       TELEPHONE:  703-684-1111
;       TELEFAX:  703-684-1124
;  INFORMATION FOR SEQ ID NO:  9:
;     SEQUENCE CHARACTERISTICS:
;       LENGTH:  42 amino acids
;       TYPE:  amino acid
;       STRANDEDNESS:  single
;       TOPOLOGY:  linear
;     MOLECULE TYPE:  peptide
US-08-609-090-9

  Query Match             100.0%;  Score 217;  DB 2;  Length 42;
  Best Local Similarity   100.0%;  Pred. No. 4e-26;
  Matches   42;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 42
           ||||||||||||||||||||||||||||||||||||||||||
Db       1 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 42


RESULT 14
US-07-737-371E-72
; Sequence 72, Application US/07737371E
; Patent No. 5876948
;  GENERAL INFORMATION:
;     APPLICANT:  Yankner, Bruce A.
;     TITLE OF INVENTION:  SCREENING METHODS TO IDENTIFY
;     TITLE OF INVENTION:  NEUROTOXIN INHIBITORS (AS AMENDED)
;     NUMBER OF SEQUENCES:  77
;     CORRESPONDENCE ADDRESS:
;       ADDRESSEE:  Fish & Richardson, P.C.
;       STREET:  225 Franklin Street
;       CITY:  Boston
;       STATE:  MA
,       COUNTRY:  US
,       ZIP:  02110-2804
;     COMPUTER READABLE FORM:
;       MEDIUM TYPE:  Diskette
;       COMPUTER:  IBM Compatible
;       OPERATING SYSTEM:  Windows95
;       SOFTWARE:  FastSEQ for Windows Version 2.0
;     CURRENT APPLICATION DATA:
;       APPLICATION NUMBER:  US/07/737,371E
;       FILING DATE:  29-JUL-1991
;       CLASSIFICATION:  536
;     PRIOR APPLICATION DATA:
;       APPLICATION NUMBER:  07/559,172
;       FILING DATE:  27-JUL-1990
;     ATTORNEY/AGENT INFORMATION:
;       NAME:  Freeman, John W.
;       REGISTRATION NUMBER:  29,066
;       REFERENCE/DOCKET NUMBER:  00108/028002
;     TELECOMMUNICATION INFORMATION:
;       TELEPHONE:  617-542-5070
;       TELEFAX:  617-542-8906
;       TELEX:  200154
;  INFORMATION FOR SEQ ID NO:  72:
;     SEQUENCE CHARACTERISTICS:
;       LENGTH:  42 amino acids
;       TYPE:  amino acid
;       TOPOLOGY:  linear
;     MOLECULE TYPE:  protein
US-07-737-371E-72

  Query Match             100.0%;  Score 217;  DB 2;  Length 42;
  Best Local Similarity   100.0%;  Pred. No. 4e-26;
  Matches   42;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 42
           ||||||||||||||||||||||||||||||||||||||||||
Db       1 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 42


RESULT 15
US-08-422-333-4
; Sequence 4, Application US/08422333
; Patent No. 5912410
;  GENERAL INFORMATION:
;     APPLICANT:  CORDELL, Barbara L.
;     TITLE OF INVENTION:  TRANSGENIC NON-HUMAN MAMMAL DISPLAYING
;     TITLE OF INVENTION:  THE AMYLOID-FORMING PATHOLOGY OF ALZHEIMER'S DISEASE
;     NUMBER OF SEQUENCES:  30
;     CORRESPONDENCE ADDRESS:
;       ADDRESSEE:  Scios, Inc.
;       STREET:  2450 Bayshore Parkway
;       CITY:  Mountain View
;       STATE:  CA
;       COUNTRY:  USA
;       ZIP:  94043
;     COMPUTER READABLE FORM:
;       MEDIUM TYPE:  Floppy disk
;       COMPUTER:  IBM PC compatible
;       OPERATING SYSTEM:  PC-DOS/MS-DOS
;       SOFTWARE:  PatentIn Release #1.0, Version #1.30
;     CURRENT APPLICATION DATA:
;       APPLICATION NUMBER:  US/08/422,333
;       FILING DATE:  13-APR-1995
;       CLASSIFICATION:  800
;     ATTORNEY/AGENT INFORMATION:
;       NAME:  Shearer, Peter R.
;       REGISTRATION NUMBER:  28,117
;       REFERENCE/DOCKET NUMBER:  21900-28048.00
;     TELECOMMUNICATION INFORMATION:
;       TELEPHONE:  (415) 966-1550
;       TELEFAX:  (415) 968-2438
;  INFORMATION FOR SEQ ID NO:  4:
;     SEQUENCE CHARACTERISTICS:
;       LENGTH:  42 amino acids
;       TYPE:  amino acid
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; STRANDEDNESS: single
; TOPOLOGY: linear
US-08-422-333-4

Query Match 100.0%; Score 217; DB 2; Length 42;
Best Local Similarity 100.0%; Pred. No. 4e-26;
Matches 42; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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          ||||||||||||||||||||||||||||||||||||||||||
Db      1 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 42
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Search completed: April 21, 2003, 12:08:07
Job time : 16 secs

GenCore version 5.1.4_p5_4578
Copyright (c) 1993 - 2003 Compugen Ltd.

OM protein - protein search, using sw model

Run on: April 21, 2003, 12:06:50 ; Search time 15 Seconds
(without alignments)
211.719 Million cell updates/sec

Title: US-09-580-018-42
Perfect score: 217
Sequence: 1 DAEFRHDSGYEVHHQKLVFF.....DVGSNKGAIIGLMVGGVVIA 42

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 288829 seqs, 75613885 residues

Total number of hits satisfying chosen parameters: 288829

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : Published_Applications_AA:*
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2: /cgn2_6/ptodata/2/pubpaa/PCT_NEW_PUB.pep:*
3: /cgn2_6/ptodata/2/pubpaa/US06_NEW_PUB.pep:*
4: /cgn2_6/ptodata/2/pubpaa/US06_PUBCOMB.pep:*
5: /cgn2_6/ptodata/2/pubpaa/US07_NEW_PUB.pep:*
6: /cgn2_6/ptodata/2/pubpaa/US07_PUBCOMB.pep:*
7: /cgn2_6/ptodata/2/pubpaa/PCTUS_PUBCOMB.pep:*
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11: /cgn2_6/ptodata/2/pubpaa/US10_NEW_PUB.pep:*
12: /cgn2_6/ptodata/2/pubpaa/US10_PUBCOMB.pep:*
13: /cgn2_6/ptodata/2/pubpaa/US60_NEW_PUB.pep:*
14: /cgn2_6/ptodata/2/pubpaa/US60_PUBCOMB.pep:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	217	100.0	42	8	US-08-923-055-2	Sequence 2, Appli
2	217	100.0	42	9	US-10-051-496-2	Sequence 2, Appli
3	217	100.0	42	9	US-10-082-804-7	Sequence 7, Appli
4	217	100.0	42	9	US-09-962-955C-37	Sequence 37, Appl
5	217	100.0	42	9	US-09-848-616-174	Sequence 174, App
6	217	100.0	42	9	US-09-865-294-65	Sequence 65, Appl
7	217	100.0	42	10	US-09-867-847-1	Sequence 1, Appli
8	217	100.0	42	10	US-09-956-625-26	Sequence 26, Appl
9	217	100.0	42	10	US-09-731-460-1	Sequence 1, Appli
10	217	100.0	43	9	US-10-076-708-7	Sequence 7, Appli
11	217	100.0	43	9	US-10-051-496-1	Sequence 1, Appli
12	217	100.0	43	9	US-10-217-459-1	Sequence 1, Appli
13	217	100.0	43	10	US-09-280-966-1	Sequence 1, Appli
14	217	100.0	43	10	US-09-904-987-1	Sequence 1, Appli
15	217	100.0	43	10	US-09-808-037-3	Sequence 3, Appli
16	217	100.0	43	10	US-09-866-712-3	Sequence 3, Appli
17	217	100.0	43	10	US-09-972-475-1	Sequence 1, Appli
18	217	100.0	43	10	US-09-992-800-1	Sequence 1, Appli
19	217	100.0	43	10	US-09-895-443-1	Sequence 1, Appli
20	217	100.0	43	10	US-09-996-357-1	Sequence 1, Appli
21	217	100.0	43	10	US-09-992-994-1	Sequence 1, Appli
22	217	100.0	43	10	US-09-984-834-1	Sequence 1, Appli
23	217	100.0	43	12	US-10-041-605-1	Sequence 1, Appli
24	217	100.0	53	10	US-09-797-543-5	Sequence 5, Appli
25	217	100.0	53	12	US-10-016-717-1	Sequence 1, Appli
26	217	100.0	70	10	US-09-155-076-14	Sequence 14, Appl
27	217	100.0	82	9	US-09-848-616-173	Sequence 173, App
28	217	100.0	99	9	US-10-183-119-2	Sequence 2, Appli
29	217	100.0	100	10	US-09-794-975-4	Sequence 4, Appli
30	217	100.0	103	10	US-09-972-475-2	Sequence 2, Appli
31	217	100.0	103	10	US-09-895-443-2	Sequence 2, Appli
32	217	100.0	117	9	US-09-422-569-10	Sequence 10, Appl
33	217	100.0	117	10	US-09-794-975-6	Sequence 6, Appli
34	217	100.0	117	10	US-09-823-153-2	Sequence 2, Appli
35	217	100.0	355	10	US-09-794-975-13	Sequence 13, Appl
36	217	100.0	695	10	US-09-794-927-10	Sequence 10, Appl
37	217	100.0	695	10	US-09-794-927-12	Sequence 12, Appl
38	217	100.0	695	10	US-09-794-927-14	Sequence 14, Appl
39	217	100.0	695	10	US-09-795-847-10	Sequence 10, Appl
40	217	100.0	695	10	US-09-795-847-12	Sequence 12, Appl
41	217	100.0	695	10	US-09-795-847-14	Sequence 14, Appl
42	217	100.0	695	10	US-09-794-743-10	Sequence 10, Appl
43	217	100.0	695	10	US-09-794-743-12	Sequence 12, Appl
44	217	100.0	695	10	US-09-794-743-14	Sequence 14, Appl
45	217	100.0	695	10	US-09-794-748-10	Sequence 10, Appl

ALIGNMENTS

```
RESULT 1
US-08-923-055-2
; Sequence 2, Application US/08923055
; Patent No. US20010016327A1
;  GENERAL INFORMATION:
;    APPLICANT:  Dana Giulian
;    TITLE OF INVENTION:  Identification of Agents that Protect
;    TITLE OF INVENTION:  Against Inflammatory Injury to Neurons
;    NUMBER OF SEQUENCES:  2
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Woodcock Washburn Kurtz Mackiewicz
;      ADDRESSEE:  & No. US20010016327A1ris LLP
;      STREET:  One Liberty Place - 46th Floor
;      CITY:  Philadelphia
;      STATE:  PA
;      COUNTRY:  USA
;      ZIP:  19103
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  DISKETTE, 3.5 INCH, 1.44 Mb STORAGE
;      COMPUTER:  IBM PS/2
;      OPERATING SYSTEM:  PC-DOS
;      SOFTWARE:  WORDPERFECT for WINDOWS 6.0
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/923,055
;      FILING DATE:  Sept-03-97
;      CLASSIFICATION:  435
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:
;      FILING DATE:
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Lori Y. Beardell
;      REGISTRATION NUMBER:  34,293
;      REFERENCE/DOCKET NUMBER:  BYLR-0038
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (215) 568-3100
;      TELEFAX:  (215) 568-3439
;  INFORMATION FOR SEQ ID NO:  2:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  42 amino acids
;      TYPE:  amino acid
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  peptide
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US-08-923-055-2

Query Match 100.0%; Score 217; DB 8; Length 42;
Best Local Similarity 100.0%; Pred. No. 1.5e-22;
Matches 42; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 42
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Db 1 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 42

RESULT 2
US-10-051-496-2
; Sequence 2, Application US/10051496
; Publication No. US20020182660A1
; GENERAL INFORMATION:
; APPLICANT: Kei-Lai L. Fong
; TITLE OF INVENTION: N- and C-Terminus Specific Immunoassays for
; Full Length Beta-Amyloid Peptide - Abeta(1-40), Abeta(1-39)
; Abeta(1-41), Abeta(1-42) and Abeta (1-43)
; NUMBER OF SEQUENCES: 5
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Kei-Lai L. Fong
; STREET: 1004 West 8th Avenue
; CITY: King of Prussia
; STATE: Pennsylvania
; COUNTRY: USA
; ZIP: 19406
; COMPUTER READABLE FORM:
; MEDIUM TYPE: 3.50 inch, 1.44MB storage
; COMPUTER: IBM PC Compatibles
; OPERATING SYSTEM: Windows
; SOFTWARE: MS No. US20020182660A1epad
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/10/051,496
; FILING DATE: 18-Jan-2002
; CLASSIFICATION: <Unknown>
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US/09/784,854A
; FILING DATE: 16-Feb-2001
; APPLICATION NUMBER: 60/183,407
; FILING DATE: 18-February-2000
; ATTORNEY/AGENT INFORMATION:
; NAME: Koenig, C. Frederick III
; REGISTRATION NUMBER: 29,662
; REFERENCE/DOCKET NUMBER: PBI-PT001.1
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (215) 568-6400
; TELEFAX: (215) 568-6499
; INFORMATION FOR SEQ ID NO: 2:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 42 Amino Acid
; TYPE: Amino Acid
; TOPOLOGY: Linear
; MOLECULE TYPE: Protein
; FEATURE:
; NAME/KEY: Signal Sequence
; LOCATION: 1-42
; IDENTIFICATION METHOD: Similarity to other sequences, hydro-phobic
; OTHER INFORMATION:
; PUBLICATION INFORMATION:
; AUTHORS:
; TITLE:
; JOURNAL:
; VOLUME:
; ISSUE:
; PAGES:
; DATE:
; RELEVANT RESIDUES IN SEQ ID NO: 2:FROM 1-42
; SEQUENCE DESCRIPTION: SEQ ID NO: 2:
US-10-051-496-2

Query Match 100.0%; Score 217; DB 9; Length 42;
Best Local Similarity 100.0%; Pred. No. 1.5e-22;
Matches 42; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 42
||||||||||||||||||||||||||||||||||||||||||
Db 1 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 42

RESULT 3
US-10-082-804-7
; Sequence 7, Application US/10082804
; Publication No. US20020194632A1
; GENERAL INFORMATION:
; APPLICANT: McConlogue, Lisa
; APPLICANT: Gurney, Mark E.
; TITLE OF INVENTION: Transgenic Knockouts of BACE-1
; FILE REFERENCE: MBHB 02-329-A
; CURRENT APPLICATION NUMBER: US/10/082,804
; CURRENT FILING DATE: 2002-02-22
; PRIOR APPLICATION NUMBER: 60/271,092
; PRIOR FILING DATE: 2001-02-23
; PRIOR APPLICATION NUMBER: 60/271,514
; PRIOR FILING DATE: 2001-02-26
; PRIOR APPLICATION NUMBER: 60/293,762
; PRIOR FILING DATE: 2001-05-25
; NUMBER OF SEQ ID NOS: 7
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 7
; LENGTH: 42
; TYPE: PRT
; ORGANISM: Homo sapiens
; FEATURE:
; OTHER INFORMATION: A-beta 42 sequence.
US-10-082-804-7

Query Match 100.0%; Score 217; DB 9; Length 42;
Best Local Similarity 100.0%; Pred. No. 1.5e-22;
Matches 42; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 42
||||||||||||||||||||||||||||||||||||||||||
Db 1 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 42

RESULT 4
US-09-962-955C-37
; Sequence 37, Application US/09962955C
; Publication No. US20030013648A1
; GENERAL INFORMATION:
; APPLICANT: Gerardo M. Castillo
; APPLICANT: Alan D. Snow
; NUMBER OF SEQUENCES: 37
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Patrick M. Dwyer
; STREET: ProteoTech, Inc, 1818 Westlake Avenue N, Suite 114
; CITY: Seattle
; STATE: WA (Washington)
; COUNTRY: United States of America
; ZIP: 98109
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Diskette - 3.50 inch, 1.44 Mb storage
; COMPUTER: IBM PC
; OPERATING SYSTEM: Windows 98
; SOFTWARE: WordPerfect 9
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/09/962,955C
; FILING DATE: 24-September-2001
; CLASSIFICATION:
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 09/938,275
; FILING DATE: 22-August-2001
; CLASSIFICATION:
; ATTORNEY/AGENT INFORMATION:

```
;       NAME:  Dwyer, Patrick M.
;       REGISTRATION NUMBER:  32,411
;       REFERENCE/DOCKET NUMBER:  PROTEO.P03CI
;     TELECOMMUNICATION INFORMATION:
;       TELEPHONE:  (206) 343-7074
;       TELEFAX:  (206) 343-7085
;   INFORMATION FOR SEQ ID NO:  37:
;     SEQUENCE CHARACTERISTICS:
;       LENGTH:  42 AMINO ACIDS
;       TYPE:  AMINO ACID
;       STRANDEDNESS:
;       TOPOLOGY:  LINEAR
;     ORIGINAL SOURCE:
;       ORGANISM:  MOUSE
;     FEATURE:
;       OTHER INFORMATION:  Also referred to in the specification as "AB 1-42"
US-09-962-955C-37

  Query Match          100.0%;  Score 217;  DB 9;  Length 42;
  Best Local Similarity   100.0%;  Pred. No. 1.5e-22;
  Matches   42;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 42
           ||||||||||||||||||||||||||||||||||||||||||
Db       1 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 42


RESULT 5
US-09-848-616-174
; Sequence 174, Application US/09848616
; Publication No. US20030054010A1
; GENERAL INFORMATION:
;  APPLICANT: Sebbel, Peter
;  APPLICANT:  Dunant, Nicolas
;  APPLICANT:  Bachmann, Martin
;  APPLICANT:  Tissot, Alain
;  APPLICANT:  Lechner, Franziska
;  TITLE OF INVENTION: Molecular Antigen Array
;  FILE REFERENCE: 1700.0180002
;  CURRENT APPLICATION NUMBER: US/09/848,616
;  CURRENT FILING DATE:  2001-05-05
;  NUMBER OF SEQ ID NOS: 186
;  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 174
;   LENGTH: 42
;   TYPE: PRT
;   ORGANISM: Unknown
;   FEATURE:
;   OTHER INFORMATION: Amyloid Beta Peptide
US-09-848-616-174

  Query Match          100.0%;  Score 217;  DB 9;  Length 42;
  Best Local Similarity   100.0%;  Pred. No. 1.5e-22;
  Matches   42;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 42
           ||||||||||||||||||||||||||||||||||||||||||
Db       1 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 42


RESULT 6
US-09-865-294-65
; Sequence 65, Application US/09865294
; Publication No. US20030068325A1
; GENERAL INFORMATION:
;  APPLICANT: Wang, Chang Yi
;  TITLE OF INVENTION: Immunogenic peptide composition as vaccines for the
;  TITLE OF INVENTION:  prevention and treatment of Alzheimer's Disease
;  FILE REFERENCE: 1151-4167
;  CURRENT APPLICATION NUMBER: US/09/865,294
;  CURRENT FILING DATE:  2001-05-25
;  NUMBER OF SEQ ID NOS: 76
;  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 65
;   LENGTH: 42
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-09-865-294-65

  Query Match          100.0%;  Score 217;  DB 9;  Length 42;
  Best Local Similarity   100.0%;  Pred. No. 1.5e-22;
  Matches   42;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 42
           ||||||||||||||||||||||||||||||||||||||||||
Db       1 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 42


RESULT 7
US-09-867-847-1
; Sequence 1, Application US/09867847
; Patent No. US20020094335A1
; GENERAL INFORMATION:
;  APPLICANT: Chalifour, Robert
;  APPLICANT:  Hebert, Lise
;  APPLICANT:  Kong, Xianqi
;  APPLICANT:  Gervais, Francine
;  TITLE OF INVENTION: VACCINE FOR THE PREVENTION AND TREATMENT OF ALZHEIMER'S
;  TITLE OF INVENTION:  AND AMYLOID RELATED DISEASES
;  FILE REFERENCE: 14445-501 CIP
;  CURRENT APPLICATION NUMBER: US/09/867,847
;  CURRENT FILING DATE:  2001-09-20
;  PRIOR APPLICATION NUMBER: 60/168,594
;  PRIOR FILING DATE: 1999-11-29
;  PRIOR APPLICATION NUMBER: 09/724,842
;  PRIOR FILING DATE: 2000-11-28
;  NUMBER OF SEQ ID NOS: 65
;  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 1
;   LENGTH: 42
;   TYPE: PRT
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Description of Artificial Sequence: All D peptides
;   OTHER INFORMATION: or peptidomimetics
US-09-867-847-1

  Query Match          100.0%;  Score 217;  DB 10;  Length 42;
  Best Local Similarity   100.0%;  Pred. No. 1.5e-22;
  Matches   42;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 42
           ||||||||||||||||||||||||||||||||||||||||||
Db       1 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 42


RESULT 8
US-09-956-625-26
; Sequence 26, Application US/09956625
; Patent No. US20020119926A1
; GENERAL INFORMATION:
;  APPLICANT: Fraser, Paul
;  TITLE OF INVENTION: Inhibitors of IAPP Fibril Formation and Uses Thereof
;  FILE REFERENCE: 14445-503
;  CURRENT APPLICATION NUMBER: US/09/956,625
;  CURRENT FILING DATE:  2001-09-19
;  PRIOR APPLICATION NUMBER: 60/233,482
;  PRIOR FILING DATE: 2000-09-19
;  NUMBER OF SEQ ID NOS: 27
;  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 26
;   LENGTH: 42
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-09-956-625-26
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  Query Match             100.0%;  Score 217;  DB 10;  Length 42;
  Best Local Similarity   100.0%;  Pred. No. 1.5e-22;
  Matches   42;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 42
           ||||||||||||||||||||||||||||||||||||||||||
Db       1 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 42


RESULT 9
US-09-731-460-1
; Sequence 1, Application US/09731460
; Patent No. US20020137112A1
; GENERAL INFORMATION:
;  APPLICANT:  Chojkier, Mario
;  APPLICANT:  Buck, Martina
;  TITLE OF INVENTION:  Compositions and Methods for Diagnosing Alzheimer's
;  TITLE OF INVENTION:  Disease
;  FILE REFERENCE:  CHOJKIER-04302
;  CURRENT APPLICATION NUMBER: US/09/731,460
;  CURRENT FILING DATE:  2000-12-07
;  NUMBER OF SEQ ID NOS:  1
;  SOFTWARE:  PatentIn Ver. 2.0
; SEQ ID NO 1
;   LENGTH: 42
;   TYPE: PRT
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Description of Artificial Sequence:  Synthetic
US-09-731-460-1

  Query Match             100.0%;  Score 217;  DB 10;  Length 42;
  Best Local Similarity   100.0%;  Pred. No. 1.5e-22;
  Matches   42;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 42
           ||||||||||||||||||||||||||||||||||||||||||
Db       1 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 42


RESULT 10
US-10-076-708-7
; Sequence 7, Application US/10076708
; Patent No. US20020164657A1
; GENERAL INFORMATION:
;  APPLICANT: Sharma, Satish
;  APPLICANT:  Rank, Kenneth
;  TITLE OF INVENTION: Assays for Accessing Aa-Tau Aggregation
;  FILE REFERENCE: 6322
;  CURRENT APPLICATION NUMBER: US/10/076,708
;  CURRENT FILING DATE:  2002-02-15
;  NUMBER OF SEQ ID NOS: 7
;  SOFTWARE: PatentIn version 3.0
; SEQ ID NO 7
;   LENGTH: 43
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-10-076-708-7

  Query Match             100.0%;  Score 217;  DB 9;  Length 43;
  Best Local Similarity   100.0%;  Pred. No. 1.6e-22;
  Matches   42;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 42
           ||||||||||||||||||||||||||||||||||||||||||
Db       1 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 42


RESULT 11
US-10-051-496-1
; Sequence 1, Application US/10051496
; Publication No. US20020182660A1
;   GENERAL INFORMATION:
;       APPLICANT: Kei-Lai L. Fong
;       TITLE OF INVENTION: N- and C-Terminus Specific Immunoassays for
;                           Full Length Beta-Amyloid Peptide - Abeta(1-40), Abeta(1-39),
;                           Abeta(1-41), Abeta(1-42) and Abeta (1-43)
;       NUMBER OF SEQUENCES: 5
;       CORRESPONDENCE ADDRESS:
;            ADDRESSEE: Kei-Lai L. Fong
;            STREET: 1004 West 8th Avenue
;            CITY: King of Prussia
;            STATE: Pennsylvania
;            COUNTRY: USA
;            ZIP: 19406
;       COMPUTER READABLE FORM:
;            MEDIUM TYPE: 3.50 inch, 1.44MB storage
;            COMPUTER: IBM PC Compatibles
;            OPERATING SYSTEM: Windows
;            SOFTWARE: MS No. US20020182660A1epad
;       CURRENT APPLICATION DATA:
;            APPLICATION NUMBER: US/10/051,496
;            FILING DATE: 18-Jan-2002
;            CLASSIFICATION: <Unknown>
;       PRIOR APPLICATION DATA:
;            APPLICATION NUMBER: US/09/784,854A
;            FILING DATE: 16-Feb-2001
;            APPLICATION NUMBER: 60/183,407
;            FILING DATE: 18-February-2000
;       ATTORNEY/AGENT INFORMATION:
;            NAME: Koenig, C. Frederick III
;            REGISTRATION NUMBER: 29,662
;            REFERENCE/DOCKET NUMBER: PBI-PT001.1
;       TELECOMMUNICATION INFORMATION:
;            TELEPHONE: (215) 568-6400
;            TELEFAX: (215) 568-6499
;   INFORMATION FOR SEQ ID NO: 1:
;       SEQUENCE CHARACTERISTICS:
;            LENGTH: 43 Amino Acid
;            TYPE: Amino Acid
;            STRANDEDNESS: <Unknown>
;            TOPOLOGY: Linear
;       MOLECULE TYPE: Protein
;       HYPOTHETICAL: <Unknown>
;       ANTI-SENSE: <Unknown>
;       ORIGINAL SOURCE:
;            ORGANISM: <Unknown>
;            INDIVIDUAL ISOLATE: <Unknown>
;            CELL TYPE: <Unknown>
;       IMMEDIATE SOURCE:
;            LIBRARY: <Unknown>
;            CLONE: <Unknown>
;       PUBLICATION INFORMATION:
;            AUTHORS:
;            TITLE:
;            JOURNAL:
;            VOLUME:
;            ISSUE:
;            PAGES:
;            DATE:
;            RELEVANT RESIDUES IN SEQ ID NO: 1:FROM 1 TO 43
;       SEQUENCE DESCRIPTION: SEQ ID NO: 1:
US-10-051-496-1

  Query Match             100.0%;  Score 217;  DB 9;  Length 43;
  Best Local Similarity   100.0%;  Pred. No. 1.6e-22;
  Matches   42;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 42
           ||||||||||||||||||||||||||||||||||||||||||
Db       1 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 42


RESULT 12
US-10-217-459-1
; Sequence 1, Application US/10217459
```

```
; Publication No. US20030069445A1
; GENERAL INFORMATION:
;  APPLICANT: AUDIA, James
;  APPLICANT:  HYSLOP, Paul
;  APPLICANT:  NISSEN, Jeffrey
;  APPLICANT:  THOMPSON, Richard
;  APPLICANT:  TUNG, Jay
;  APPLICANT:  TANNER, Laura
;  TITLE OF INVENTION: BIOLOGICAL REAGENTS AND METHODS FOR DETERMINING THE
;  TITLE OF INVENTION;  MECHANISM IN THE GENERATION OF BETA-AMYLOID PEPTIDE
;  FILE REFERENCE: 002010-354
;  CURRENT APPLICATION NUMBER: US/10/217,459
;  CURRENT FILING DATE:  2002-08-14
;  PRIOR APPLICATION NUMBER: US 09/164,390
;  PRIOR FILING DATE: 1998-09-30
;  NUMBER OF SEQ ID NOS: 1
;  SOFTWARE: PatentIn version 3.0
; SEQ ID NO 1
;   LENGTH: 43
;   TYPE: PRT
;   ORGANISM: beta-amyloid precursor protein
US-10-217-459-1

  Query Match             100.0%;  Score 217;  DB 9;  Length 43;
  Best Local Similarity   100.0%;  Pred. No. 1.6e-22;
  Matches   42;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 42
          ||||||||||||||||||||||||||||||||||||||||||
Db      1 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 42


RESULT 13
US-09-280-966-1
; Sequence 1, Application US/09280966
; Patent No. US20010020097A1
;   GENERAL INFORMATION:
;        APPLICANT: JAMES E. AUDIA
;                   BEVERLY K. FOLMER
;                   VARGHESE JOHN
;                   JEFFREY S. NISSEN
;                   WARREN J. PORTER
;                   EUGENE D. THORSETT
;                   JING WU
;        TITLE OF INVENTION: N-(ARYL/HETEROARYLACETYL) AMINO
;                            ACID ESTERS, PHARMACEUTICAL COMPOSITIONS
;                            COMPRISING SAME, AND METHODS FOR INHIBITING
;                            -AMYLOID PEPTIDE RELEASE AND/OR ITS
;        NUMBER OF SEQUENCES: 1
;        CORRESPONDENCE ADDRESS:
;             ADDRESSEE: Burns, Doane, Swecker & Mathis, LLP
;             STREET: P.O. Box 1404
;             CITY: Alexandria
;             STATE: Virginia
;             COUNTRY: U.S.A.
;             ZIP: 22313-1404
;        COMPUTER READABLE FORM:
;             MEDIUM TYPE: Floppy disk
;             COMPUTER: IBM PC compatible
;             OPERATING SYSTEM: PC-DOS/MS-DOS
;             SOFTWARE: PatentIn Release #1.0, Version #1.30
;        CURRENT APPLICATION DATA:
;             APPLICATION NUMBER: US/09/280,966
;             FILING DATE: 30-Mar-1999
;             CLASSIFICATION: <Unknown>
;        PRIOR APPLICATION DATA:
;             APPLICATION NUMBER: 08/976,191
;             FILING DATE: 21 NOV 1997
;             APPLICATION NUMBER: 60/077,175
;             FILING DATE: 22 NOV 1996
;        ATTORNEY/AGENT INFORMATION:
;             NAME: Swiss, Gerald F.
;             REGISTRATION NUMBER: 30,113
;             REFERENCE/DOCKET NUMBER: 002010-335
;        TELECOMMUNICATION INFORMATION:
;             TELEPHONE: 650-622-2300
;             TELEFAX: 650-622-2499
;   INFORMATION FOR SEQ ID NO: 1:
;        SEQUENCE CHARACTERISTICS:
;             LENGTH: 43 amino acids
;             TYPE: amino acid
;             TOPOLOGY: linear
;        MOLECULE TYPE: peptide
;        SEQUENCE DESCRIPTION: SEQ ID NO: 1:
US-09-280-966-1

  Query Match             100.0%;  Score 217;  DB 10;  Length 43;
  Best Local Similarity   100.0%;  Pred. No. 1.6e-22;
  Matches   42;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 42
          ||||||||||||||||||||||||||||||||||||||||||
Db      1 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 42


RESULT 14
US-09-904-987-1
; Sequence 1, Application US/09904987
; Patent No. US20020037908A1
; GENERAL INFORMATION:
;  APPLICANT: No. US20020037908A1actyl, Inc.
;  TITLE OF INVENTION: Methods and Compositions for Controlling Pathological and Prepathc
;  TITLE OF INVENTION:  Protein Assembly or Aggregation
;  FILE REFERENCE: 42108/26146
;  CURRENT APPLICATION NUMBER: US/09/904,987
;  CURRENT FILING DATE:  2001-07-12
;  NUMBER OF SEQ ID NOS: 7
;  SOFTWARE: PatentIn version 3.0
; SEQ ID NO 1
;   LENGTH: 43
;   TYPE: PRT
;   ORGANISM: homo sapiens
;  PUBLICATION INFORMATION:
;   DATABASE ACCESSION NUMBER: NCBI ENTREZ / QRHUA4
;   DATABASE ENTRY DATE: 2000-09-15
;   RELEVANT RESIDUES: (672)..(714)
US-09-904-987-1

  Query Match             100.0%;  Score 217;  DB 10;  Length 43;
  Best Local Similarity   100.0%;  Pred. No. 1.6e-22;
  Matches   42;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 42
          ||||||||||||||||||||||||||||||||||||||||||
Db      1 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 42


RESULT 15
US-09-808-037-3
; Sequence 3, Application US/09808037
; Patent No. US20020052311A1
; GENERAL INFORMATION:
;  APPLICANT: SOLOMON, Beka
;  APPLICANT:  HANAN, Eilat
;  TITLE OF INVENTION: METHODS AND COMPOSITIONS FOR THE TREATMENT AND/OR DIAGNOSIS OF
;  TITLE OF INVENTION:  NEUROLOGICAL DISEASES AND DISORDERS
;  FILE REFERENCE: SOLOMON=2D
;  CURRENT APPLICATION NUMBER: US/09/808,037
;  CURRENT FILING DATE:  2001-03-15
;  PRIOR APPLICATION NUMBER: 09/629,971
;  PRIOR FILING DATE: 2000-07-31
;  PRIOR APPLICATION NUMBER: US 09/473,653
;  PRIOR FILING DATE: 1999-12-29
;  PRIOR APPLICATION NUMBER: US 60/152,417
;  PRIOR FILING DATE: 1999-09-03
;  NUMBER OF SEQ ID NOS: 33
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;  SOFTWARE: PatentIn version 3.0
; SEQ ID NO 3
;    LENGTH: 43
;    TYPE: PRT
;    ORGANISM: Artificial Sequence
;    FEATURE:
;    OTHER INFORMATION: synthetic peptide
US-09-808-037-3

  Query Match             100.0%;  Score 217;  DB 10;  Length 43;
  Best Local Similarity   100.0%;  Pred. No. 1.6e-22;
  Matches   42;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 42
          ||||||||||||||||||||||||||||||||||||||||||
Db      1 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 42


Search completed: April 21, 2003, 12:08:28
Job time : 15 secs
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GenCore version 5.1.4_p5_4578
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OM protein - protein search, using sw model

Run on: April 21, 2003, 12:05:20 ; Search time 18 Seconds
(without alignments)
224.314 Million cell updates/sec

Title: US-09-580-018-42
Perfect score: 217
Sequence: 1 DAEFRHDSGYEVHHQKLVFF.....DVGSNKGAIIGLMVGGVVIA 42

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 283224 seqs, 96134422 residues

Total number of hits satisfying chosen parameters: 283224

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : PIR_73:*
1: pir1:*
2: pir2:*
3: pir3:*
4: pir4:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	217	100.0	42	2	PN0512	beta-amyloid prote
2	217	100.0	57	2	E60045	Alzheimer's diseas
3	217	100.0	57	2	F60045	Alzheimer's diseas
4	217	100.0	57	2	G60045	Alzheimer's diseas
5	217	100.0	57	2	D60045	Alzheimer's diseas
6	217	100.0	57	2	A60045	Alzheimer's diseas
7	217	100.0	57	2	B60045	Alzheimer's diseas
8	217	100.0	82	2	PQ0438	Alzheimer's diseas
9	217	100.0	695	1	A49795	Alzheimer's diseas
10	217	100.0	770	1	QRHUA4	Alzheimer's diseas
11	198	91.2	695	2	A27485	Alzheimer's diseas
12	198	91.2	695	2	S00550	Alzheimer's diseas
13	198	91.2	747	2	JH0773	Alzheimer's diseas
14	133	61.3	33	2	S23094	beta-amyloid prote
15	63	29.0	755	2	AI3228	tryptophan 2-monoo
16	62	28.6	755	1	QQAG4T	tryptophan 2-monoo
17	61	28.1	755	1	DAAGWT	tryptophan 2-monoo
18	57	26.3	327	2	S11435	genome polyprotein
19	57	26.3	503	2	S73843	general amino acid
20	56.5	26.0	378	2	S61992	SLG1 protein - yea
21	55.5	25.6	297	2	G69525	formylmethanofuran
22	55.5	25.6	678	2	G71526	3-methyl-2-oxobuta
23	55	25.3	291	2	F95015	glycosyl transfera
24	55	25.3	317	2	H97888	glycosyl transfera
25	55	25.3	488	2	S27652	probable aldehyde
26	55	25.3	3063	2	JS0166	genome polyprotein
27	54.5	25.1	678	2	C81683	3-methyl-2-oxobuta
28	54.5	25.1	832	2	H84848	phospholipase D [i
29	54	24.9	77	2	C97027	feoA-like protein,
30	54	24.9	284	2	S04723	genome polyprotein
31	54	24.9	763	2	AI3443	Na+/H+ antiporter
32	53.5	24.7	708	2	T24727	hypothetical prote
33	53.5	24.7	971	2	D70128	conserved hypothet
34	53	24.4	256	2	G96774	hypothetical prote
35	53	24.4	390	2	C75103	na+/h+ antiporter
36	53	24.4	422	2	D72302	hypothetical prote
37	53	24.4	601	2	T02581	nodulin-like prote
38	53	24.4	1555	2	JT0959	polyprotein - pota
39	52.5	24.2	314	2	F86805	cation transporter
40	52.5	24.2	678	2	C86495	hypothetical prote
41	52.5	24.2	678	2	H72128	3-methyl-2-oxobuta
42	52	24.0	272	2	F70979	hypothetical prote
43	52	24.0	339	2	A81351	signal transductio
44	52	24.0	417	2	F70132	conserved hypothet
45	52	24.0	527	2	T18232	conserved hypothet

ALIGNMENTS

RESULT 1
PN0512
beta-amyloid protein - guinea pig (fragment)
C;Species: Cavia porcellus (guinea pig)
C;Date: 31-Dec-1993 #sequence_revision 31-Dec-1993 #text_change 17-Mar-1999
C;Accession: PN0512
R;Shimohigashi, Y.; Matsumoto, H.; Takano, Y.; Saito, R.; Iwata, T.; Kamiya, H.; Ohno, M
Biochem. Biophys. Res. Commun. 193, 624-630, 1993
A;Title: Receptor-mediated specific biological activity of a beta-amyloid protein fragme
A;Reference number: PN0512; MUID:93290653; PMID:7685598
A;Accession: PN0512
A;Molecule type: protein
A;Residues: 1-42 <SHI>
C;Superfamily: Alzheimer's disease amyloid beta protein; animal Kunitz-type proteinase in
C;Keywords: alternative splicing; amyloid

Query Match 100.0%; Score 217; DB 2; Length 42;
Best Local Similarity 100.0%; Pred. No. 7.5e-22;
Matches 42; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Qy      1 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 42
          ||||||||||||||||||||||||||||||||||||||||||
Db      1 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 42
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RESULT 2
E60045
Alzheimer's disease amyloid beta/A4 protein precursor - sheep (fragment)
C;Species: Ovis sp. (sheep)
C;Date: 01-Dec-1992 #sequence_revision 01-Dec-1992 #text_change 28-Jul-1995
C;Accession: E60045
R;Johnstone, E.M.; Chaney, M.O.; Norris, F.H.; Pascual, R.; Little, S.P.
Brain Res. Mol. Brain Res. 10, 299-305, 1991
A;Title: Conservation of the sequence of the Alzheimer's disease amyloid peptide in dog,
A;Reference number: A60045; MUID:92017079; PMID:1656157
A;Accession: E60045
A;Molecule type: mRNA
A;Residues: 1-57 <JOH>
A;Cross-references: EMBL:X56130
C;Superfamily: Alzheimer's disease amyloid beta protein; animal Kunitz-type proteinase in
C;Keywords: alternative splicing; Alzheimer's disease; amyloid; brain

Query Match 100.0%; Score 217; DB 2; Length 57;
Best Local Similarity 100.0%; Pred. No. 1e-21;
Matches 42; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Qy      1 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 42
          ||||||||||||||||||||||||||||||||||||||||||
Db      6 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 47
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RESULT 3

```
F60045
Alzheimer's disease amyloid beta/A4 protein precursor - pig (fragment)
C;Species: Sus scrofa domestica (domestic pig)
C;Date: 01-Dec-1992 #sequence_revision 01-Dec-1992 #text_change 13-Aug-1999
C;Accession: F60045
R;Johnstone, E.M.; Chaney, M.O.; Norris, F.H.; Pascual, R.; Little, S.P.
Brain Res. Mol. Brain Res. 10, 299-305, 1991
A;Title: Conservation of the sequence of the Alzheimer's disease amyloid peptide in dog,
A;Reference number: A60045; MUID:92017079; PMID:1656157
A;Accession: F60045
A;Molecule type: mRNA
A;Residues: 1-57 <JOH>
A;Cross-references: EMBL:X56127; NID:g1895; PIDN:CAA39592.1; PID:g1896
C;Superfamily: Alzheimer's disease amyloid beta protein; animal Kunitz-type proteinase i
C;Keywords: alternative splicing; Alzheimer's disease; amyloid; brain

  Query Match             100.0%;  Score 217;  DB 2;  Length 57;
  Best Local Similarity   100.0%;  Pred. No. 1e-21;
  Matches   42;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 42
          ||||||||||||||||||||||||||||||||||||||||||
Db      6 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 47


RESULT 4
G60045
Alzheimer's disease amyloid beta/A4 protein precursor - guinea pig (fragment)
C;Species: Cavia porcellus (guinea pig)
C;Date: 01-Dec-1992 #sequence_revision 01-Dec-1992 #text_change 28-Jul-1995
C;Accession: G60045
R;Johnstone, E.M.; Chaney, M.O.; Norris, F.H.; Pascual, R.; Little, S.P.
Brain Res. Mol. Brain Res. 10, 299-305, 1991
A;Title: Conservation of the sequence of the Alzheimer's disease amyloid peptide in dog,
A;Reference number: A60045; MUID:92017079; PMID:1656157
A;Accession: G60045
A;Molecule type: mRNA
A;Residues: 1-57 <JOH>
A;Cross-references: EMBL:X56126
C;Superfamily: Alzheimer's disease amyloid beta protein; animal Kunitz-type proteinase i
C;Keywords: alternative splicing; Alzheimer's disease; amyloid; brain

  Query Match             100.0%;  Score 217;  DB 2;  Length 57;
  Best Local Similarity   100.0%;  Pred. No. 1e-21;
  Matches   42;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 42
          ||||||||||||||||||||||||||||||||||||||||||
Db      6 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 47


RESULT 5
D60045
Alzheimer's disease amyloid beta/A4 protein precursor - bovine (fragment)
C;Species: Bos primigenius taurus (cattle)
C;Date: 01-Dec-1992 #sequence_revision 01-Dec-1992 #text_change 28-Jul-1995
C;Accession: D60045
R;Johnstone, E.M.; Chaney, M.O.; Norris, F.H.; Pascual, R.; Little, S.P.
Brain Res. Mol. Brain Res. 10, 299-305, 1991
A;Title: Conservation of the sequence of the Alzheimer's disease amyloid peptide in dog,
A;Reference number: A60045; MUID:92017079; PMID:1656157
A;Accession: D60045
A;Molecule type: mRNA
A;Residues: 1-57 <JOH>
A;Cross-references: EMBL:X56124
C;Superfamily: Alzheimer's disease amyloid beta protein; animal Kunitz-type proteinase i
C;Keywords: alternative splicing; Alzheimer's disease; amyloid; brain

  Query Match             100.0%;  Score 217;  DB 2;  Length 57;
  Best Local Similarity   100.0%;  Pred. No. 1e-21;
  Matches   42;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 42
          ||||||||||||||||||||||||||||||||||||||||||
Db      6 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 47


RESULT 6
A60045
Alzheimer's disease amyloid beta/A4 protein precursor - dog (fragment)
C;Species: Canis lupus familiaris (dog)
C;Date: 01-Dec-1992 #sequence_revision 01-Dec-1992 #text_change 28-Jul-1995
C;Accession: A60045
R;Johnstone, E.M.; Chaney, M.O.; Norris, F.H.; Pascual, R.; Little, S.P.
Brain Res. Mol. Brain Res. 10, 299-305, 1991
A;Title: Conservation of the sequence of the Alzheimer's disease amyloid peptide in dog,
A;Reference number: A60045; MUID:92017079; PMID:1656157
A;Accession: A60045
A;Molecule type: mRNA
A;Residues: 1-57 <JOH>
A;Cross-references: EMBL:X56125
C;Superfamily: Alzheimer's disease amyloid beta protein; animal Kunitz-type proteinase i
C;Keywords: alternative splicing; Alzheimer's disease; amyloid; brain

  Query Match             100.0%;  Score 217;  DB 2;  Length 57;
  Best Local Similarity   100.0%;  Pred. No. 1e-21;
  Matches   42;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 42
          ||||||||||||||||||||||||||||||||||||||||||
Db      6 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 47


RESULT 7
B60045
Alzheimer's disease amyloid beta/A4 protein precursor - polar bear (fragment)
C;Species: Ursus maritimus (polar bear)
C;Date: 01-Dec-1992 #sequence_revision 01-Dec-1992 #text_change 13-Aug-1999
C;Accession: B60045
R;Johnstone, E.M.; Chaney, M.O.; Norris, F.H.; Pascual, R.; Little, S.P.
Brain Res. Mol. Brain Res. 10, 299-305, 1991
A;Title: Conservation of the sequence of the Alzheimer's disease amyloid peptide in dog,
A;Reference number: A60045; MUID:92017079; PMID:1656157
A;Accession: B60045
A;Molecule type: mRNA
A;Residues: 1-57 <JOH>
A;Cross-references: EMBL:X56128; NID:g2165; PIDN:CAA39593.1; PID:g2166
C;Superfamily: Alzheimer's disease amyloid beta protein; animal Kunitz-type proteinase i
C;Keywords: alternative splicing; Alzheimer's disease; amyloid; brain

  Query Match             100.0%;  Score 217;  DB 2;  Length 57;
  Best Local Similarity   100.0%;  Pred. No. 1e-21;
  Matches   42;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 42
          ||||||||||||||||||||||||||||||||||||||||||
Db      6 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 47


RESULT 8
PQ0438
Alzheimer's disease amyloid A4 protein precursor - rabbit (fragment)
C;Species: Oryctolagus cuniculus (domestic rabbit)
C;Date: 30-Sep-1993 #sequence_revision 19-Oct-1995 #text_change 19-Oct-1995
C;Accession: PQ0438; C60045
R;Davidson, J.S.; West, R.L.; Kotikalapudi, P.; Maroun, L.E.
Biochem. Biophys. Res. Commun. 188, 905-911, 1992
A;Title: Sequence and methylation in the beta/A4 region of the rabbit amyloid precursor
A;Reference number: PQ0438; MUID:93075180; PMID:1445331
A;Accession: PQ0438
A;Molecule type: DNA
A;Residues: 1-82 <DAV>
A;Cross-references: GB:M83558; GB:M83657
R;Johnstone, E.M.; Chaney, M.O.; Norris, F.H.; Pascual, R.; Little, S.P.
Brain Res. Mol. Brain Res. 10, 299-305, 1991
A;Title: Conservation of the sequence of the Alzheimer's disease amyloid peptide in dog,
```

A;Reference number: A60045; MUID:92017079; PMID:1656157
A;Accession: C60045
A;Molecule type: mRNA
A;Residues: 12-68 <JOH>
A;Cross-references: EMBL:X56129
C;Superfamily: Alzheimer's disease amyloid beta protein; animal Kunitz-type proteinase i
C;Keywords: alternative splicing; Alzheimer's disease; amyloid; Down's syndrome

Query Match 100.0%; Score 217; DB 2; Length 82;
Best Local Similarity 100.0%; Pred. No. 1.6e-21;
Matches 42; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 42
||||||||||||||||||||||||||||||||||||||||||
Db 17 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 58

RESULT 9
A49795
Alzheimer's disease amyloid beta protein precursor - crab-eating macaque
C;Species: Macaca fascicularis (crab-eating macaque)
C;Date: 10-Sep-1999 #sequence_revision 10-Sep-1999 #text_change 10-Sep-1999
C;Accession: A49795
R;Podlisny, M.B.; Tolan, D.R.; Selkoe, D.J.
Am. J. Pathol. 138, 1423-1435, 1991
A;Title: Homology of the amyloid beta protein precursor in monkey and human supports a p
A;Reference number: A49795; MUID:91273117; PMID:1905108
A;Accession: A49795
A;Status: preliminary
A;Molecule type: mRNA
A;Residues: 1-695 <POD>
A;Cross-references: GB:M58727; NID:g342062; PIDN:AAA36829.1; PID:g342063
C;Superfamily: Alzheimer's disease amyloid beta protein; animal Kunitz-type proteinase i
C;Keywords: alternative splicing

Query Match 100.0%; Score 217; DB 1; Length 695;
Best Local Similarity 100.0%; Pred. No. 1.6e-20;
Matches 42; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 42
||||||||||||||||||||||||||||||||||||||||||
Db 597 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 638

RESULT 10
QRHUA4
Alzheimer's disease amyloid beta protein precursor [validated] - human
N;Alternate names: Alzheimer's disease amyloid A4 protein; coagulation factor XIa inhibi
N;Contains: amyloid beta protein long, plaque form; amyloid beta protein short, vascular
protein precursor splice form APP(770)
C;Species: Homo sapiens (man)
C;Date: 30-Jun-1987 #sequence_revision 28-Jul-1995 #text_change 15-Sep-2000
C;Accession: S02260; S05194; A32277; A33260; A35486; I39452; I39451; I39453; I59562; A44
4668; A28583; A29302; A60805; JL0038; S06121; A60355; A59011; A38384; S29076; S38252; S3
R;Lemaire, H.G.; Salbaum, J.M.; Multhaup, G.; Kang, J.; Bayney, R.M.; Unterbeck, A.; Bey
Nucleic Acids Res. 17, 517-522, 1989
A;Title: The PreA4(695) precursor protein of Alzheimer's disease A4 amyloid is encoded b
A;Reference number: S02260; MUID:89128427; PMID:2783775
A;Accession: S02260
A;Molecule type: DNA
A;Residues: 1-288,'V',365-770 <LEM1>
A;Cross-references: EMBL:X13466
A;Note: alternative splice form APP(695)
R;Lemaire, H.G.
submitted to the EMBL Data Library, November 1988
A;Reference number: S05194
A;Accession: S05194
A;Molecule type: DNA
A;Residues: 1-14,'VW',17-288,'V',365-770 <LEM2>
A;Cross-references: EMBL:X13466; NID:g35598; PIDN:CAA31830.1; PID:g871360
A;Note: alternative splice form APP(695)
R;La Fauci, G.; Lahiri, D.K.; Salton, S.R.J.; Robakis, N.K.
Biochem Biophys Res Commun. 159, 297-304, 1989
A;Title: Characterization of the 5'-end region and the first two exons of the beta-protei
A;Reference number: A32277; MUID:89165870; PMID:2538123
A;Accession: A32277
A;Molecule type: DNA
A;Residues: 1-75 <LAF>
A;Cross-references: GB:M24546; GB:M24547; NID:g341202; PIDN:AAC13654.1; PID:g516074
R;Johnstone, E.M.; Chaney, M.O.; Moore, R.E.; Ward, K.E.; Norris, F.H.; Little, S.P.
Biochem. Biophys. Res. Commun. 163, 1248-1255, 1989
A;Title: Alzheimer's disease amyloid peptide is encoded by two exons and shows similarity
A;Reference number: A33260; MUID:89392030; PMID:2675837
A;Accession: A33260
A;Molecule type: DNA
A;Residues: 656-737 <JOH>
A;Cross-references: GB:M29270; NID:g178863; PIDN:AAA51768.1; PID:g178865
R;Prelli, F.; Levy, E.; van Duinen, S.G.; Bots, G.T.A.M.; Luyendijk, W.; Frangione, B.
Biochem. Biophys. Res. Commun. 170, 301-307, 1990
A;Title: Expression of a normal and variant Alzheimer's beta-protein gene in amyloid of
A;Reference number: A35486; MUID:90321244; PMID:2196878
A;Accession: A35486
A;Molecule type: DNA
A;Residues: 672-710 <PRE1>
A;Note: 693-Gln was found in DNA isolated from HCHWA-D patients
R;Yoshikai, S.I.; Sasaki, H.; Doh-ura, K.; Furuya, H.; Sakaki, Y.
Gene 87, 257-263, 1990
A;Title: Genomic organization of the human amyloid beta-protein precursor gene.
A;Reference number: I39451; MUID:90236318; PMID:2110105
A;Accession: I39452
A;Status: nucleic acid sequence not shown; translation not shown; translated from GB/EMB
A;Molecule type: DNA
A;Residues: 1-770 <YOS1>
A;Cross-references: GB:M33112; NID:g178613; PIDN:AAB59502.1; PID:g178616
A;Accession: I39451
A;Status: nucleic acid sequence not shown; translation not shown; translated from GB/EMB
A;Molecule type: DNA
A;Residues: 1-530,'QWLMPVIPAFWEAKVGR' <YOS2>
A;Cross-references: GB:M34875; NID:g178608; PIDN:AAB59501.1; PID:g178615
R;Yoshikai, S.I.; Sasaki, H.; Doh-ura, K.; Furuya, H.; Sakaki, Y.
Gene 102, 291-292, 1991
A;Reference number: A59020; MUID:91340168; PMID:1908403
A;Contents: annotation; erratum
A;Note: revised physical map for reference I39451
R;Levy, E.; Carman, M.D.; Fernandez-Madrid, I.J.; Power, M.D.; Lieberburg, I.; van Duine
Science 248, 1124-1126, 1990
A;Title: Mutation of the Alzheimer's disease amyloid gene in hereditary cerebral hemorrh
A;Reference number: I39453; MUID:90260663; PMID:2111584
A;Accession: I39453
A;Status: translated from GB/EMBL/DDBJ
A;Molecule type: DNA
A;Residues: 656-737 <LEV>
A;Cross-references: GB:M37896; NID:g178618; PIDN:AAA51727.1; PID:g178620
A;Note: a mutation with 693-Gln is presented
R;Murrell, J.; Farlow, M.; Ghetti, B.; Benson, M.D.
Science 254, 97-99, 1991
A;Title: A mutation in the amyloid precursor protein associated with hereditary Alzheime
A;Reference number: I59562; MUID:92022553; PMID:1925564
A;Accession: I59562
A;Status: translated from GB/EMBL/DDBJ
A;Molecule type: DNA
A;Residues: 689-716,'F',718-737 <MUR>
A;Cross-references: GB:S57665; NID:g236720; PIDN:AAB19991.1; PID:g236721
R;Kamino, K.; Orr, H.T.; Payami, H.; Wijsman, E.M.; Alonso, M.E.; Pulst, S.M.; Anderson,
arakis, S.E.; Korenberg, J.R.; Sharma, V.; Kukull, W.; Larson, E.; Heston, L.L.; Martin,
Am. J. Hum. Genet. 51, 998-1014, 1992
A;Title: Linkage and mutational analysis of familial Alzheimer disease kindreds for the
A;Reference number: A44017; MUID:93035397; PMID:1415269
A;Accession: A44017
A;Molecule type: DNA
A;Residues: 687-692,'G',694-718 <KAM1>
A;Cross-references: GB:S45135; NID:g257377; PIDN:AAB23645.1; PID:g257378
A;Experimental source: familial Alzheimer disease family SB
A;Note: sequence extracted from NCBI backbone (NCBIP:115374)
A;Accession: B44017
A;Molecule type: DNA

A;Residues: 687-718 <KAM2>
A;Cross-references: GB:S45136; NID:g257379; PIDN:AAB23646.1; PID:g257380
A;Experimental source: familial Alzheimer disease family LIT
A;Note: sequence extracted from NCBI backbone (NCBIP:115376)
A;Note: this sequence has a silent mutation
R;Kang, J.; Lemaire, H.G.; Unterbeck, A.; Salbaum, J.M.; Masters, C.L.; Grzeschik, K.H.;
Nature 325, 733-736, 1987
A;Title: The precursor of Alzheimer's disease amyloid A4 protein resembles a cell-surfac
A;Reference number: A03134; MUID:87144572; PMID:2881207
A;Accession: A03134
A;Molecule type: mRNA
A;Residues: 1-288,'V',365-770 <KAN>
A;Cross-references: GB:Y00264; NID:g28525; PIDN:CAA68374.1; PID:g28526
A;Note: alternative splice form APP(695)
R;Robakis, N.K.; Ramakrishna, N.; Wolfe, G.; Wisniewski, H.M.
Proc. Natl. Acad. Sci. U.S.A. 84, 4190-4194, 1987
A;Title: Molecular cloning and characterization of a cDNA encoding the cerebrovascular a
A;Reference number: A29030; MUID:87231971; PMID:3035574
A;Accession: A29030
A;Molecule type: mRNA
A;Residues: 284-288,'V',365-646,'E',648-770 <ROB>
A;Cross-references: GB:M16765; NID:g178539; PIDN:AAA51722.1; PID:g178540
A;Note: the authors translated the codon GAG for residue 647 as Asp
R;Goldgaber, D.; Lerman, M.I.; McBride, O.W.; Saffiotti, U.; Gajdusek, D.C.
Science 235, 877-880, 1987
A;Title: Characterization and chromosomal localization of a cDNA encoding brain amyloid
A;Reference number: A47584; MUID:87120328; PMID:3810169
A;Accession: A47584
A;Molecule type: mRNA
A;Residues: 674-756,'S',758-770 <GOL>
A;Cross-references: GB:M15533; NID:g178706; PIDN:AAA35540.1; PID:g178707
A;Experimental source: brain
R;Tanzi, R.E.; Gusella, J.F.; Watkins, P.C.; Bruns, G.A.P.; St George-Hyslop, P.; Van Ke
Science 235, 880-884, 1987
A;Title: Amyloid beta protein gene: cDNA, mRNA distribution, and genetic linkage near th
A;Reference number: A47585; MUID:87120329; PMID:2949367
A;Accession: A47585
A;Molecule type: mRNA
A;Residues: 674-703 <TAN1>
A;Cross-references: GB:M15532; NID:g177957; PIDN:AAA51564.1; PID:g177958
R;Dyrks, T.; Weidemann, A.; Multhaup, G.; Salbaum, J.M.; Lemaire, H.G.; Kang, J.; Muelle
EMBO J. 7, 949-957, 1988
A;Title: Identification, transmembrane orientation and biogenesis of the amyloid A4 prec
A;Reference number: S02638; MUID:88296437; PMID:2900137
A;Accession: S02638
A;Molecule type: mRNA
A;Residues: 672-678 <DYR>
R;Tanzi, R.E.; McClatchey, A.I.; Lamperti, E.D.; Villa-Komaroff, L.; Gusella, J.F.; Neve
Nature 331, 528-530, 1988
A;Title: Protease inhibitor domain encoded by an amyloid protein precursor mRNA associat
A;Reference number: S00707; MUID:88122640; PMID:2893290
A;Accession: S00707
A;Molecule type: mRNA
A;Residues: 286-344,'I',365-366 <TAN2>
A;Cross-references: EMBL:X06982; NID:g28817; PIDN:CAA30042.1; PID:g929612
A;Experimental source: promyelocytic leukemia cell line HL60
A;Note: alternative splice form APP(751)
R;Ponte, P.; Gonzalez-DeWhitt, P.; Schilling, J.; Miller, J.; Hsu, D.; Greenberg, B.; Da
Nature 331, 525-527, 1988
A;Title: A new A4 amyloid mRNA contains a domain homologous to serine proteinase inhibit
A;Reference number: S00925; MUID:88122639; PMID:2893289
A;Accession: S00925
A;Molecule type: mRNA
A;Residues: 1-344,'I',365-770 <PO2>
A;Cross-references: GB:X06989; EMBL:Y00297; NID:g28720; PIDN:CAA30050.1; PID:g28721
A;Note: alternative splice form APP(751)
R;Kitaguchi, N.; Takahashi, Y.; Tokushima, Y.; Shiojiri, S.; Ito, H.
Nature 331, 530-532, 1988
A;Title: Novel precursor of Alzheimer's disease amyloid protein shows protease inhibitor
A;Reference number: A38949; MUID:88122641; PMID:2893291
A;Accession: A38949
A;Molecule type: mRNA
A;Residues: 287-367 <KIT>
A;Cross-references: GB:X06981; NID:g28816; PIDN:CAA30041.1; PID:g929611
A;Experimental source: glioblastoma cell line
A;Note: alternative splice form APP(770)
R;Vitek, M.P.; Rasool, C.G.; de Sauvage, F.; Vitek, S.M.; Bartus, R.T.; Beer, B.; Ashton
Brain Res. Mol. Brain Res. 4, 121-131, 1988
A;Title: Absence of mutation in the beta-amyloid cDNAs cloned from the brains of three p
A;Reference number: A30320
A;Accession: A30320
A;Status: not compared with conceptual translation
A;Molecule type: mRNA
A;Residues: 284-288,'V',365-770 <VIT1>
A;Accession: B30320
A;Status: not compared with conceptual translation
A;Molecule type: mRNA
A;Residues: 122-288,'V',365-770 <VIT2>
A;Accession: C30320
A;Status: not compared with conceptual translation
A;Molecule type: mRNA
A;Residues: 606-770 <VIT3>
R;Zain, S.B.; Salim, M.; Chou, W.G.; Sajdel-Sulkowska, E.M.; Majocha, R.E.; Marotta, C A
Proc. Natl. Acad. Sci. U.S.A. 85, 929-933, 1988
A;Title: Molecular cloning of amyloid cDNA derived from mRNA of the Alzheimer disease br.
A;Reference number: A31087; MUID:88124954; PMID:2893379
A;Accession: A31087
A;Molecule type: mRNA
A;Residues: 507-770 <ZAI>
A;Cross-references: GB:M18734; NID:g178572; PIDN:AAA51726.1; PID:g178573
A;Note: the authors translated the codon GAA for residue 599 as Gly, ACC for residue 603
8 as Val, GTG for residue 609 as Asn, AAT for residue 610 as Gly, and GGT for residue 65
A;Note: the cited Genbank accession number, J03594, is not in release 101.0
R;Masters, C.L.; Multhaup, G.; Simms, G.; Pottgiesser, J.; Martins, R.N.; Beyreuther, K

Query Match 100.0%; Score 217; DB 1; Length 770;
Best Local Similarity 100.0%; Pred. No. 1.8e-20;
Matches 42; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 42
||||||||||||||||||||||||||||||||||||||||||
Db 672 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 713

RESULT 11
A27485
Alzheimer's disease amyloid beta/A4 protein homolog precursor - mouse
N;Alternate names: proteinase nexin II
C;Species: Mus musculus (house mouse)
C;Date: 31-Mar-1989 #sequence_revision 31-Mar-1989 #text_change 13-Aug-1999
C;Accession: A27485; S19727; I49485
R;Yamada, T.; Sasaki, H.; Furuya, H.; Miyata, T.; Goto, I.; Sakaki, Y.
Biochem. Biophys. Res. Commun. 149, 665-671, 1987
A;Title: Complementary DNA for the mouse homolog of the human amyloid beta protein precu
A;Reference number: A27485; MUID:88106489; PMID:3322280
A;Accession: A27485
A;Molecule type: mRNA
A;Residues: 1-695 <YAM>
A;Cross-references: GB:M18373; NID:g191568; PIDN:AAA37139.1; PID:g309085
A;Experimental source: brain
R;de Strooper, B.; van Leuven, F.; van den Berghe, H.
Biochim. Biophys. Acta 1129, 141-143, 1991
A;Title: The amyloid beta protein precursor or proteinase nexin II from mouse is closer
A;Reference number: S19727; MUID:92096458; PMID:1756177
A;Accession: S19727
A;Molecule type: mRNA
A;Residues: 1-210,'G',212-220,'S',222-396,'A',398-402,'T',404-448,'A',450-695 <STR>
A;Cross-references: EMBL:X59379
R;Izumi, R.; Yamada, T.; Yoshikai, S.; Sasaki, H.; Hattori, M.; Sakaki, Y.
Gene 112, 189-195, 1992
A;Title: Positive and negative regulatory elements for the expression of the Alzheimer's
A;Reference number: I49485; MUID:92209998; PMID:1555768
A;Accession: I49485
A;Status: translated from GB/EMBL/DDBJ
A;Molecule type: DNA
A;Residues: 1-19 <RES>

A,Cross-references: GB:D10603; NID:g220328; PIDN:BAA01456.1; PID:g220329
C,Genetics:
A,Map position: 16C3
C;Superfamily: Alzheimer's disease amyloid beta protein; animal Kunitz-type proteinase i
C;Keywords: alternative splicing; amyloid; transmembrane protein

Query Match 91.2%; Score 198; DB 2; Length 695;
Best Local Similarity 92.9%; Pred. No. 5.1e-18;
Matches 39; Conservative 1; Mismatches 2; Indels 0; Gaps 0;

Qy 1 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 42
Db 597 DAEFGHDSGFEVRHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 638

RESULT 12
S00550
Alzheimer's disease amyloid beta protein precursor - rat
N;Alternate names: beta-A4 amyloid protein
C;Species: Rattus norvegicus (Norway rat)
C;Date: 30-Jun-1989 #sequence_revision 30-Jun-1989 #text_change 13-Aug-1999
C;Accession: S00550; A41245; A39820; S46251
R;Shivers, B.D.; Hilbich, C.; Multhaup, G.; Salbaum, M.; Beyreuther, K.; Seeburg, P.H.
EMBO J. 7, 1365-1370,'1988
A;Title: Alzheimer's disease amyloidogenic glycoprotein: expression pattern in rat brain
A;Reference number: S00550; MUID:88312583; PMID:2900758
A;Accession: S00550
A;Molecule type: mRNA
A;Residues: 1-695 <SHI>
A;Cross-references: EMBL:X07648; NID:g55616; PIDN:CAA30488.1; PID:g55617
R;Schubert, D.; Schroeder, R.; LaCorbiere, M.; Saitoh, T.; Cole, G.
Science 241, 223-226, 1988
A;Title: Amyloid beta protein precursor is possibly a heparan sulfate proteoglycan core
A;Reference number: A41245; MUID:88264430; PMID:2968652
A;Accession: A41245
A;Molecule type: protein
A;Residues: 18-37,'X',39-40,'X',42-44 <SCH>
A;Note: evidence for heparan sulfate attachment
R;Hesse, L.; Beher, D.; Masters, C.L.; Multhaup, G.
FEBS Lett. 349, 109-116, 1994
A;Title: The beta-A4 amyloid precursor protein binding to copper.
A;Reference number: S46251; MUID:94320627; PMID:7913895
A;Contents: annotation; copper binding sites
A;Note: rat peptides were isolated but not sequenced
R;Potempska, A.; Styles, J.; Mehta, P.; Kim, K.S.; Miller, D.L.
J. Biol. Chem. 266, 8464-8469, 1991
A;Title: Purification and tissue level of the beta-amyloid peptide precursor of rat brai
A;Reference number: A39820; MUID:91217087; PMID:1673681
A;Accession: A39820
A;Status: preliminary
A;Molecule type: protein
A;Residues: 18-32 <POT>
A;Experimental source: brain
C;Comment: Deposition of amyloid protein as neurofibrillary tangles and/or plaques is ch
C;Superfamily: Alzheimer's disease amyloid beta protein; animal Kunitz-type proteinase i
C;Keywords: alternative splicing; amyloid; glycoprotein; transmembrane protein
F;625-648/Domain: transmembrane #status predicted <TMM>

Query Match 91.2%; Score 198; DB 2; Length 695;
Best Local Similarity 92.9%; Pred. No. 5.1e-18;
Matches 39; Conservative 1; Mismatches 2; Indels 0; Gaps 0;

Qy 1 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 42
Db 597 DAEFGHDSGFEVRHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 638

RESULT 13
JH0773
Alzheimer's disease amyloid beta protein precursor - African clawed frog
C;Species: Xenopus laevis (African clawed frog)
C;Date: 10-Jun-1993 #sequence_revision 10-Jun-1993 #text_change 13-Aug-1999
C,Accession JH0773
R;Okado, H.; Okamoto, H.
Biochem. Biophys. Res. Commun. 189, 1561-1568, 1992
A;Title: A Xenopus homologue of the human beta-amyloid precursor protein: developmental r
A;Reference number: JH0773; MUID:93129227; PMID:1282805
A;Accession: JH0773
A;Molecule type: mRNA
A;Residues: 1-747 <OKA>
A;Cross-references: GB:S52417; NID:g263150; PIDN:AAB24853.1; PID:g263151
A;Experimental source: larva
C;Superfamily: Alzheimer's disease amyloid beta protein; animal Kunitz-type proteinase ir
C;Keywords: alternative splicing; amyloid
F;287-337/Domain: animal Kunitz-type proteinase inhibitor homology <BPI>

Query Match 91.2%; Score 198; DB 2; Length 747;
Best Local Similarity 88.1%; Pred. No. 5.5e-18;
Matches 37; Conservative 4; Mismatches 1; Indels 0; Gaps 0;

Qy 1 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 42
Db 649 DSEYRHDTAYEVHHQKLVFFAEEVGSNKGAIIGLMVGGVVIA 690

RESULT 14
S23094
beta-amyloid protein precursor - rat
C;Species: Rattus norvegicus (Norway rat)
C;Date: 22-Nov-1993 #sequence_revision 10-Nov-1995 #text_change 03-May-1996
C;Accession: S23094
R;Kojima, S.; Omori, M.
FEBS Lett. 304, 57-60, 1992
A;Title: Two-way cleavage of beta-amyloid protein precursor by multicatalytic proteinase
A;Reference number: S23094; MUID:92316198; PMID:1618299
A;Accession: S23094
A;Molecule type: protein
A;Residues: 1-33 <KOJ>
C;Superfamily: Alzheimer's disease amyloid beta protein; animal Kunitz-type proteinase ir

Query Match 61.3%; Score 133; DB 2; Length 33;
Best Local Similarity 89.3%; Pred. No. 6.6e-11;
Matches 25; Conservative 1; Mismatches 2; Indels 0; Gaps 0;

Qy 1 DAEFRHDSGYEVHHQKLVFFAEDVGSNK 28
Db 6 DAEFGHDSGFEVRHQKLVFFAEDVGSNK 33

RESULT 15
AI3228
tryptophan 2-monooxygenase tms1 [imported] - Agrobacterium tumefaciens (strain C58, Dupor
C;Species: Agrobacterium tumefaciens
C;Date: 11-Jan-2002 #sequence_revision 11-Jan-2002 #text_change 01-Feb-2002
C;Accession: AI3228
R;Wood, D.W.; Setubal, J.C.; Kaul, R.; Monks, D.; Chen, L.; Wood, G.E.; Chen, Y.; Woo, L
erage, G.; Gillet, W.; Grant, C.; Guenthner, D.; Kutyavin, T.; Levy, R.; Li, M.; McClella
; Karp, P.; Romero, P.; Zhang, S.
Science 294, 2317-2323, 2001
A;Authors: Yoo, H.; Tao, Y.; Biddle, P.; Jung, M.; Krespan, W.; Perry, M.; Gordon-Kamm, I
ster, E.W.
A;Title: The Genome of the Natural Genetic Engineer Agrobacterium tumefaciens C58.
A;Reference number: AB2577; PMID:11743193
A;Accession: AI3228
A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-755 <KUR>
A;Cross-references: GB:AE008690; PIDN:AAL46247.1; PID:g17744025; GSPDB:GN00189
A;Experimental source: strain C58 (Dupont)
C;Genetics:
A;Gene: tms1
A;Genome: plasmid
C;Superfamily: Agrobacterium plasmid tryptophan 2-monooxygenase

Query Match 29.0%; Score 63; DB 2; Length 755;
Best Local Similarity 44.4%; Pred. No. 3.3;

Matches 16; Conservative 5; Mismatches 9; Indels 6; Gaps 1;

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Qy       7 DSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 42
           |||      :: || |||   | ||||  : |:|:|
Db     223 DSG------RIGFFPEDVPKPKVAIIGAGISGLVVA 252
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Search completed: April 21, 2003, 12:07:46
Job time : 20 secs

GenCore version 5.1.4_p5_4578
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OM protein - protein search, using sw model

Run on: April 21, 2003, 12:01:04 ; Search time 11 Seconds
(without alignments)
158.364 Million cell updates/sec

Title: US-09-580-018-42
Perfect score: 217
Sequence: 1 DAEFRHDSGYEVHHQKLVFF.....DVGSNKGAIIGLMVGGVVIA 42

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 112892 seqs, 41476328 residues

Total number of hits satisfying chosen parameters: 112892

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : SwissProt_40:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	217	100.0	57	1	A4_PIG	Q29023 sus scrofa
2	217	100.0	57	1	A4_URSMA	Q29149 ursus marit
3	217	100.0	58	1	A4_CANFA	Q28280 canis famil
4	217	100.0	58	1	A4_RABIT	Q28748 oryctolagus
5	217	100.0	58	1	A4_SHEEP	Q28757 ovis aries
6	217	100.0	59	1	A4_BOVIN	Q28053 bos taurus
7	217	100.0	751	1	A4_SAISC	Q95241 saimiri sci
8	217	100.0	770	1	A4_HUMAN	P05067 homo sapien
9	198	91.2	770	1	A4_MOUSE	P12023 mus musculu
10	198	91.2	770	1	A4_RAT	P08592 rattus norv
11	62	28.6	755	1	TR2M_AGRT4	P04029 agrobacteri
12	61	28.1	755	1	TR2N_AGRVI	P25017 agrobacteri
13	57	26.3	327	1	POLG_PVYCH	P21294 potato viru
14	57	26.3	503	1	Y226_MYCPN	P75462 mycoplasma
15	56.5	26.0	378	1	SLG1_YEAST	P54867 saccharomyc
16	55.5	25.6	297	1	FTR_ARCFU	O28076 archaeoglob
17	55	25.3	488	1	DHAL_PSESP	P33008 pseudomonas
18	55	25.3	3063	1	POLG_PVYN	P18247 p genome po
19	54.5	25.1	967	1	PDB1_ARATH	P93733 arabidopsis
20	54	24.9	284	1	POLG_PVYYO	P11897 potato viru
21	53.5	24.7	708	1	YNZB_CAEEL	P45972 caenorhabdi
22	53.5	24.7	971	1	Y228_BORBU	O51246 borrelia bu
23	52	24.0	611	1	YCR3_YEAST	P25351 saccharomyc
24	51	23.5	494	1	COBQ_MYCTU	O53677 mycobacteri
25	51	23.5	769	1	ITB2_BOVIN	P32592 bos taurus
26	50.5	23.3	915	1	PDB2_ARATH	O23078 arabidopsis
27	50	23.0	285	1	MENB_HAEIN	P44960 haemophilus
28	50	23.0	1437	1	MRP5_HUMAN	O15440 homo sapien
29	50	23.0	3579	1	STAN_DROME	Q9v5n8 drosophila
30	49.5	22.8	1162	1	VGL2_IBVM	P12651 avian infec
31	49	22.6	246	1	TPIS_CULTA	P30741 culex tarsa
32	49	22.6	322	1	Y853_RICPR	Q9zca7 rickettsia
33	49	22.6	403	1	PGK_STRCO	Q9z519 streptomyce
34	49	22.6	432	1	PURA_RHILO	Q98f97 rhizobium l
35	49	22.6	568	1	NIRS_PSEAE	P24474 pseudomonas
36	49	22.6	674	1	TML1_ARATH	P33543 arabidopsis
37	49	22.6	704	1	SSP2_BOMMO	P20613 bombyx mori
38	49	22.6	753	1	PPE2_HUMAN	O14830 homo sapien
39	49	22.6	757	1	PPE2_MOUSE	O35385 mus musculu
40	49	22.6	1080	1	HDC_DROME	Q9n2m8 drosophila
41	48.5	22.4	160	1	FMDR_ECOLI	P24093 escherichia
42	48.5	22.4	330	1	COAT_PEMV	P07993 pepper mott
43	48.5	22.4	393	1	GUN1_USTMA	P54424 ustilago ma
44	48.5	22.4	459	1	Y226_MYCGE	P47468 mycoplasma
45	48.5	22.4	497	1	GLYA_CHLPN	Q9z831 chlamydia p

ALIGNMENTS

RESULT 1
A4_PIG
ID A4_PIG STANDARD; PRT; 57 AA.
AC Q29023;
DT 01-NOV-1997 (Rel. 35, Created)
DT 01-NOV-1997 (Rel. 35, Last sequence update)
DT 16-OCT-2001 (Rel. 40, Last annotation update)
DE Alzheimer's disease amyloid A4 protein homolog [Contains: Beta-amyloid
DE protein (Beta-APP) (A-beta)] (Fragment).
GN APP.
OS Sus scrofa (Pig).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Cetartiodactyla; Suina; Suidae; Sus.
OX NCBI_TaxID=9823;
RN [1]
RP SEQUENCE FROM N.A.
RC TISSUE=Brain;
RX MEDLINE=92017079; PubMed=1656157;
RA Johnstone E.M., Chaney M.O., Norris F.H., Pascual R., Little S.P.;
RT "Conservation of the sequence of the Alzheimer's disease amyloid
RT peptide in dog, polar bear and five other mammals by cross-species
RT polymerase chain reaction analysis.";
RL Brain Res. Mol. Brain Res. 10:299-305(1991).
CC -!- FUNCTION: FUNCTIONAL NEURONAL RECEPTOR WHICH COUPLES TO
CC INTRACELLULAR SIGNALING PATHWAY THROUGH THE GTP-BINDING PROTEIN
CC G(O) (BY SIMILARITY).
CC -!- SUBCELLULAR LOCATION: Type I membrane protein.
CC -!- SIMILARITY: BELONGS TO THE APP FAMILY.
CC ----------
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CC or send an email to license@isb-sib.ch).
CC ----------
DR EMBL; X56127; CAA39592.1; -.
DR HSSP; P05067; 1BA4.
DR InterPro; IPR001868; A4_APP.
DR InterPro; IPR001255; Beta-APP.
DR Pfam; PF03494; Beta-APP; 1.
DR PROSITE; PS00319; A4_EXTRA; PARTIAL.
DR PROSITE; PS00320; A4_INTRA; PARTIAL.
KW Glycoprotein; Amyloid; Neurone; Transmembrane.
FT NON_TER 1 1
FT CHAIN 6 48 BETA-AMYLOID PROTEIN (POTENTIAL).
FT DOMAIN <1 33 EXTRACELLULAR (POTENTIAL).
FT TRANSMEM 34 57 POTENTIAL.
FT NON_TER 57 57
SQ SEQUENCE 57 AA; 6172 MW; 84209D88EBA82DFA CRC64;

Query Match 100.0%; Score 217; DB 1; Length 57;
Best Local Similarity 100.0%; Pred. No. 7.9e-22;
Matches 42; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy      1 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 42
          ||||||||||||||||||||||||||||||||||||||||||
Db      6 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 47


RESULT 2
A4_URSMA
ID   A4_URSMA       STANDARD;      PRT;    57 AA.
AC   Q29149;
DT   01-NOV-1997 (Rel. 35, Created)
DT   01-NOV-1997 (Rel. 35, Last sequence update)
DT   30-MAY-2000 (Rel. 39, Last annotation update)
DE   Alzheimer's disease amyloid A4 protein homolog [Contains: Beta-amyloid
DE   protein (Beta-APP) (A-beta)] (Fragment).
GN   APP.
OS   Ursus maritimus (Polar bear) (Thalarctos maritimus).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Carnivora; Fissipedia; Ursidae; Ursus.
OX   NCBI_TaxID=29073;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   TISSUE=Brain;
RX   MEDLINE=92017079; PubMed=1656157;
RA   Johnstone E.M., Chaney M.O., Norris F.H., Pascual R., Little S.P.;
RT   "Conservation of the sequence of the Alzheimer's disease amyloid
RT   peptide in dog, polar bear and five other mammals by cross-species
RT   polymerase chain reaction analysis.";
RL   Brain Res. Mol. Brain Res. 10:299-305(1991).
CC   -!- FUNCTION: FUNCTIONAL NEURONAL RECEPTOR WHICH COUPLES TO
CC       INTRACELLULAR SIGNALING PATHWAY THROUGH THE GTP-BINDING PROTEIN
CC       G(O) (BY SIMILARITY).
CC   -!- SUBCELLULAR LOCATION: Type I membrane protein.
CC   -!- SIMILARITY: BELONGS TO THE APP FAMILY.
CC   ----------------------------------------------------------------------
CC   This SWISS-PROT entry is copyright. It is produced through a collaboration
CC   between the Swiss Institute of Bioinformatics and the EMBL outstation -
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CC   use by non-profit institutions as long as its content is in no way
CC   modified and this statement is not removed. Usage by and for commercial
CC   entities requires a license agreement (See http://www.isb-sib.ch/announce/
CC   or send an email to license@isb-sib.ch).
CC   ----------------------------------------------------------------------
DR   EMBL; X56128; CAA39593.1; -.
DR   HSSP; P05067; 1BA4.
DR   InterPro; IPR001868; A4_APP.
DR   InterPro; IPR001255; Beta-APP.
DR   Pfam; PF03494; Beta-APP; 1.
DR   PROSITE; PS00319; A4_EXTRA; PARTIAL.
DR   PROSITE; PS00320; A4_INTRA; PARTIAL.
KW   Glycoprotein; Amyloid; Neurone; Transmembrane.
FT   NON_TER       1      1
FT   CHAIN         6     48       BETA-AMYLOID PROTEIN (POTENTIAL).
FT   DOMAIN       <1     33       EXTRACELLULAR (POTENTIAL).
FT   TRANSMEM     34     57       POTENTIAL.
FT   NON_TER      57     57
SQ   SEQUENCE   57 AA;  6172 MW;  84209D88EBA82DFA CRC64;

  Query Match             100.0%;  Score 217;  DB 1;  Length 57;
  Best Local Similarity   100.0%;  Pred. No. 7.9e-22;
  Matches   42;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 42
          ||||||||||||||||||||||||||||||||||||||||||
Db      6 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 47


RESULT 3
A4_CANFA
ID   A4_CANFA       STANDARD;      PRT;    58 AA.
AC   Q28280;
DT   01-NOV-1997 (Rel. 35, Created)
DT   01-NOV-1997 (Rel. 35, Last sequence update)
DT   30-MAY-2000 (Rel. 39, Last annotation update)
DE   Alzheimer's disease amyloid A4 protein homolog [Contains: Beta-amyloid
DE   protein (Beta-APP) (A-beta)] (Fragment).
GN   APP.
OS   Canis familiaris (Dog).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Carnivora; Fissipedia; Canidae; Canis.
OX   NCBI_TaxID=9615;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   TISSUE=Kidney;
RX   MEDLINE=92017079; PubMed=1656157;
RA   Johnstone E.M., Chaney M.O., Norris F.H., Pascual R., Little S.P.;
RT   "Conservation of the sequence of the Alzheimer's disease amyloid
RT   peptide in dog, polar bear and five other mammals by cross-species
RT   polymerase chain reaction analysis.";
RL   Brain Res. Mol. Brain Res. 10:299-305(1991).
CC   -!- FUNCTION: FUNCTIONAL NEURONAL RECEPTOR WHICH COUPLES TO
CC       INTRACELLULAR SIGNALING PATHWAY THROUGH THE GTP-BINDING PROTEIN
CC       G(O) (BY SIMILARITY).
CC   -!- SUBCELLULAR LOCATION: Type I membrane protein.
CC   -!- SIMILARITY: BELONGS TO THE APP FAMILY.
CC   ----------------------------------------------------------------------
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CC   or send an email to license@isb-sib.ch).
CC   ----------------------------------------------------------------------
DR   EMBL; X56125; CAA39590.1; -.
DR   HSSP; P05067; 1BA4.
DR   InterPro; IPR001868; A4_APP.
DR   InterPro; IPR001255; Beta-APP.
DR   Pfam; PF03494; Beta-APP; 1.
DR   PROSITE; PS00319; A4_EXTRA; PARTIAL.
DR   PROSITE; PS00320; A4_INTRA; PARTIAL.
KW   Glycoprotein; Amyloid; Neurone; Transmembrane.
FT   NON_TER       1      1
FT   CHAIN         7     49       BETA-AMYLOID PROTEIN (POTENTIAL).
FT   DOMAIN       <1     34       EXTRACELLULAR (POTENTIAL).
FT   TRANSMEM     35     58       POTENTIAL.
FT   NON_TER      58     58
SQ   SEQUENCE   58 AA;  6285 MW;  8469D488A2E12DFA CRC64;

  Query Match             100.0%;  Score 217;  DB 1;  Length 58;
  Best Local Similarity   100.0%;  Pred. No. 8.1e-22;
  Matches   42;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 42
          ||||||||||||||||||||||||||||||||||||||||||
Db      7 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 48


RESULT 4
A4_RABIT
ID   A4_RABIT       STANDARD;      PRT;    58 AA.
AC   Q28748;
DT   01-NOV-1997 (Rel. 35, Created)
DT   01-NOV-1997 (Rel. 35, Last sequence update)
DT   16-OCT-2001 (Rel. 40, Last annotation update)
DE   Alzheimer's disease amyloid A4 protein homolog [Contains: Beta-amyloid
DE   protein (Beta-APP) (A-beta)] (Fragment).
GN   APP.
OS   Oryctolagus cuniculus (Rabbit).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Lagomorpha; Leporidae; Oryctolagus.
OX   NCBI_TaxID=9986;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   TISSUE=Brain;
RX   MEDLINE=92017079; PubMed=1656157;
RA   Johnstone E.M., Chaney M.O., Norris F.H., Pascual R., Little S.P.;
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RT   "Conservation of the sequence of the Alzheimer's disease amyloid
RT   peptide in dog, polar bear and five other mammals by cross-species
RT   polymerase chain reaction analysis.";
RL   Brain Res. Mol. Brain Res. 10:299-305(1991).
CC   -!- FUNCTION: FUNCTIONAL NEURONAL RECEPTOR WHICH COUPLES TO
CC       INTRACELLULAR SIGNALING PATHWAY THROUGH THE GTP-BINDING PROTEIN
CC       G(O) (BY SIMILARITY).
CC   -!- SUBCELLULAR LOCATION: Type I membrane protein.
CC   -!- SIMILARITY: BELONGS TO THE APP FAMILY.
CC   ---------------------------------------------------------------------
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CC   or send an email to license@isb-sib.ch).
CC   ---------------------------------------------------------------------
DR   EMBL; X56129; CAA39594.1; -.
DR   HSSP; P05067; 1BA4.
DR   InterPro; IPR001868; A4_APP.
DR   InterPro; IPR001255; Beta-APP.
DR   Pfam; PF03494; Beta-APP; 1.
DR   PROSITE; PS00319; A4_EXTRA; PARTIAL.
DR   PROSITE; PS00320; A4_INTRA; PARTIAL.
KW   Glycoprotein; Amyloid; Neurone; Transmembrane.
FT   NON_TER       1      1
FT   CHAIN         6     48       BETA-AMYLOID PROTEIN (POTENTIAL).
FT   DOMAIN       <1     33       EXTRACELLULAR (POTENTIAL).
FT   TRANSMEM     34     57       POTENTIAL.
FT   DOMAIN       58    >58       CYTOPLASMIC (POTENTIAL).
FT   NON_TER      58     58
SQ   SEQUENCE   58 AA;  6300 MW;  F434209D88EBA82D CRC64;

  Query Match             100.0%;  Score 217;  DB 1;  Length 58;
  Best Local Similarity   100.0%;  Pred. No. 8.1e-22;
  Matches   42;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 42
           |||||||||||||||||||||||||||||||||||||||||||
Db       6 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 47


RESULT 5
A4_SHEEP
ID   A4_SHEEP       STANDARD;      PRT;    58 AA.
AC   Q28757;
DT   01-NOV-1997 (Rel. 35, Created)
DT   01-NOV-1997 (Rel. 35, Last sequence update)
DT   30-MAY-2000 (Rel. 39, Last annotation update)
DE   Alzheimer's disease amyloid A4 protein homolog [Contains: Beta-amyloid
DE   protein (Beta-APP) (A-beta)] (Fragment).
GN   APP.
OS   Ovis aries (Sheep).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovoidea;
OC   Bovidae; Caprinae; Ovis.
OX   NCBI_TaxID=9940;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   TISSUE=Heart;
RX   MEDLINE=92017079; PubMed=1656157;
RA   Johnstone E.M., Chaney M.O., Norris F.H., Pascual R., Little S.P.;
RT   "Conservation of the sequence of the Alzheimer's disease amyloid
RT   peptide in dog, polar bear and five other mammals by cross-species
RT   polymerase chain reaction analysis.";
RL   Brain Res. Mol. Brain Res. 10:299-305(1991).
CC   -!- FUNCTION: FUNCTIONAL NEURONAL RECEPTOR WHICH COUPLES TO
CC       INTRACELLULAR SIGNALING PATHWAY THROUGH THE GTP-BINDING PROTEIN
CC       G(O) (BY SIMILARITY).
CC   -!- SUBCELLULAR LOCATION: Type I membrane protein.
CC   -!- SIMILARITY: BELONGS TO THE APP FAMILY.
CC   ---------------------------------------------------------------------
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CC   or send an email to license@isb-sib.ch).
CC   ---------------------------------------------------------------------
DR   EMBL; X56130; CAA39595.1; -.
DR   HSSP; P05067; 1BA4.
DR   InterPro; IPR001868; A4_APP.
DR   InterPro; IPR001255; Beta-APP.
DR   Pfam; PF03494; Beta-APP; 1.
DR   PROSITE; PS00319; A4_EXTRA; PARTIAL.
DR   PROSITE; PS00320; A4_INTRA; PARTIAL.
KW   Glycoprotein; Amyloid; Neurone; Transmembrane.
FT   NON_TER       1      1
FT   CHAIN         6     48       BETA-AMYLOID PROTEIN (POTENTIAL).
FT   DOMAIN       <1     33       EXTRACELLULAR (POTENTIAL).
FT   TRANSMEM     34     57       POTENTIAL.
FT   DOMAIN       58    >58       CYTOPLASMIC (POTENTIAL).
FT   NON_TER      58     58
SQ   SEQUENCE   58 AA;  6300 MW;  F434209D88EBA82D CRC64;

  Query Match             100.0%;  Score 217;  DB 1;  Length 58;
  Best Local Similarity   100.0%;  Pred. No. 8.1e-22;
  Matches   42;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 42
           |||||||||||||||||||||||||||||||||||||||||||
Db       6 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 47


RESULT 6
A4_BOVIN
ID   A4_BOVIN       STANDARD;      PRT;    59 AA.
AC   Q28053;
DT   01-NOV-1997 (Rel. 35, Created)
DT   01-NOV-1997 (Rel. 35, Last sequence update)
DT   30-MAY-2000 (Rel. 39, Last annotation update)
DE   Alzheimer's disease amyloid A4 protein homolog [Contains: Beta-amyloid
DE   protein (Beta-APP) (A-beta)] (Fragment).
GN   APP.
OS   Bos taurus (Bovine).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovoidea;
OC   Bovidae; Bovinae; Bos.
OX   NCBI_TaxID=9913;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   TISSUE=Brain;
RX   MEDLINE=92017079; PubMed=1656157;
RA   Johnstone E.M., Chaney M.O., Norris F.H., Pascual R., Little S.P.;
RT   "Conservation of the sequence of the Alzheimer's disease amyloid
RT   peptide in dog, polar bear and five other mammals by cross-species
RT   polymerase chain reaction analysis.";
RL   Brain Res. Mol. Brain Res. 10:299-305(1991).
CC   -!- FUNCTION: FUNCTIONAL NEURONAL RECEPTOR WHICH COUPLES TO
CC       INTRACELLULAR SIGNALING PATHWAY THROUGH THE GTP-BINDING PROTEIN
CC       G(O) (BY SIMILARITY).
CC   -!- SUBCELLULAR LOCATION: Type I membrane protein.
CC   -!- SIMILARITY: BELONGS TO THE APP FAMILY.
CC   ---------------------------------------------------------------------
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CC   or send an email to license@isb-sib.ch).
CC   ---------------------------------------------------------------------
DR   EMBL; X56124; CAA39589.1; -.
DR   EMBL; X56126; CAA39591.1; -.
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DR   HSSP; P05067; 1BA4.
DR   InterPro; IPR001868; A4_APP.
DR   InterPro; IPR001255; Beta-APP.
DR   Pfam; PF03494; Beta-APP; 1.
DR   PROSITE; PS00319; A4_EXTRA; PARTIAL.
DR   PROSITE; PS00320; A4_INTRA; PARTIAL.
KW   Glycoprotein; Amyloid; Neurone; Transmembrane.
FT   NON_TER .      1      1
FT   CHAIN          7     49       BETA-AMYLOID PROTEIN (POTENTIAL).
FT   DOMAIN        <1     34       EXTRACELLULAR (POTENTIAL).
FT   TRANSMEM      35     58       POTENTIAL.
FT   DOMAIN        59    >59       CYTOPLASMIC (POTENTIAL).
FT   NON_TER       59     59
SQ   SEQUENCE   59 AA;  6414 MW;  F43469D488A2E12D CRC64;

  Query Match             100.0%;  Score 217;  DB 1;  Length 59;
  Best Local Similarity   100.0%;  Pred. No. 8.2e-22;
  Matches   42;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 42
           |||||||||||||||||||||||||||||||||||||||||||
Db       7 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 48

RESULT 7
A4_SAISC
ID   A4_SAISC       STANDARD;      PRT;   751 AA.
AC   Q95241;
DT   15-DEC-1998 (Rel. 37, Created)
DT   15-DEC-1998 (Rel. 37, Last sequence update)
DT   16-OCT-2001 (Rel. 40, Last annotation update)
DE   Alzheimer's disease amyloid A4 protein precursor [Contains: Beta-
DE   amyloid protein (Beta-APP) (A-beta)].
GN   APP.
OS   Saimiri sciureus (Common squirrel monkey).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Primates; Platyrrhini; Cebidae; Cebinae; Saimiri.
OX   NCBI_TaxID=9521;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   TISSUE=Liver, and Kidney;
RX   MEDLINE=96108492; PubMed=8532114;
RA   Levy E., Amorim A., Frangione B., Walker L.C.;
RT   "Beta-amyloid precursor protein gene in squirrel monkeys with
RT   cerebral amyloid angiopathy.";
RL   Neurobiol. Aging 16:805-808(1995).
CC   -!- FUNCTION: FUNCTIONAL NEURONAL RECEPTOR WHICH COUPLES TO
CC       INTRACELLULAR SIGNALING PATHWAY THROUGH THE GTP-BINDING PROTEIN
CC       G(O).
CC   -!- SUBCELLULAR LOCATION: Type I membrane protein.
CC   -!- DOMAIN: THE CLATHRIN-BINDING SITE IS ESSENTIAL FOR ITS ASSOCIATION
CC       WITH X11-ALPHA, -BETA, AND -GAMMA. THE SEQUENCE SPECIFIC
CC       RECOGNITION EXTENDS TO PEPTIDE RESIDUES THAT ARE C-TERMINAL TO THE
CC       NPXY MOTIF. THIS INTERACTION APPEARS TO BE INDEPENDENT OF
CC       PHOSPHORYLATION (BY SIMILARITY).
CC   -!- SIMILARITY: BELONGS TO THE APP FAMILY.
CC   -!- SIMILARITY: CONTAINS 1 BPTI/KUNITZ INHIBITOR DOMAIN.
CC   ----------------------------------------------------------------------
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CC   or send an email to license@isb-sib.ch).
CC   ----------------------------------------------------------------------
DR   EMBL; S81024; AAD14347.1; -.
DR   HSSP; P05067; 1AAP.
DR   InterPro; IPR001868; A4_APP.
DR   InterPro; IPR001255; Beta-APP.
DR   InterPro; IPR002223; Kunitz_BPTI.
DR   Pfam; PF00014; Kunitz_BPTI; 1.
DR   Pfam; PF02177; A4_EXTRA; 1.
DR   Pfam; PF03494; Beta-APP; 1.
DR   PRINTS; PR00203; AMYLOIDA4.
DR   PRINTS; PR00759; BASICPTASE.
DR   ProDom; PD000222; Kunitz_BPTI; 1.
DR   SMART; SM00006; A4_EXTRA; 1.
DR   SMART; SM00131; KU; 1.
DR   PROSITE; PS00319; A4_EXTRA; 1.
DR   PROSITE; PS00320; A4_INTRA; 1.
DR   PROSITE; PS00280; BPTI_KUNITZ_1; 1.
DR   PROSITE; PS50279; BPTI_KUNITZ_2; 1.
KW   Glycoprotein; Amyloid; Neurone; Transmembrane; Alternative splicing;
KW   Signal; Serine protease inhibitor.
FT   SIGNAL         1     17       BY SIMILARITY.
FT   CHAIN         18    751       A4 PROTEIN.
FT   CHAIN        653    695       BETA-AMYLOID PROTEIN (POTENTIAL).
FT   DOMAIN        18    680       EXTRACELLULAR (POTENTIAL).
FT   TRANSMEM     681    704       POTENTIAL.
FT   DOMAIN       705    751       CYTOPLASMIC (POTENTIAL).
FT   DOMAIN       287    345       BPTI/KUNITZ INHIBITOR.
FT   SITE         740    743       CLATHRIN-BINDING (BY SIMILARITY).
FT   ACT_SITE     301    302       REACTIVE BOND.
FT   DISULFID     291    341       BY SIMILARITY.
FT   DISULFID     300    324       BY SIMILARITY.
FT   DISULFID     316    337       BY SIMILARITY.
FT   CARBOHYD     523    523       N-LINKED (GLCNAC. . .) (PROBABLE).
FT   CARBOHYD     552    552       N-LINKED (GLCNAC. . .) (PROBABLE).
SQ   SEQUENCE   751 AA;  84893 MW;  6C3E431089569049 CRC64;

  Query Match             100.0%;  Score 217;  DB 1;  Length 751;
  Best Local Similarity   100.0%;  Pred. No. 1.1e-20;
  Matches   42;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 42
           |||||||||||||||||||||||||||||||||||||||||||
Db     653 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 694

RESULT 8
A4_HUMAN
ID   A4_HUMAN       STANDARD;      PRT;   770 AA.
AC   P05067; P09000; Q16011;
DT   13-AUG-1987 (Rel. 05, Created)
DT   01-NOV-1991 (Rel. 20, Last sequence update)
DT   16-OCT-2001 (Rel. 40, Last annotation update)
DE   Alzheimer's disease amyloid A4 protein precursor (Protease nexin-II)
DE   (PN-II) (APPI) [Contains: Beta-amyloid protein (Beta-APP) (A-beta)].
GN   APP OR A4 OR CVAP OR AD1.
OS   Homo sapiens (Human).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX   NCBI_TaxID=9606;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   TISSUE=Brain;
RX   MEDLINE=87144572; PubMed=2881207;
RA   Kang J., Lemaire H.-G., Unterbeck A., Salbaum J.M., Masters C.L.,
RA   Grzeschik K.-H., Multhaup G., Beyreuther K., Mueller-Hill B.;
RT   "The precursor of Alzheimer's disease amyloid A4 protein resembles a
RT   cell-surface receptor.";
RL   Nature 325:733-736(1987).
RN   [2]
RP   SEQUENCE FROM N.A.
RX   MEDLINE=88122639; PubMed=2893289;
RA   Ponte P., Gonzalez-Dewhitt P., Schilling J., Miller J., Hsu D.,
RA   Greenberg B., Davis K., Wallace W., Lieberburg I., Fuller F.,
RA   Cordell B.;
RT   "A new A4 amyloid mRNA contains a domain homologous to serine
RT   proteinase inhibitors.";
RL   Nature 331:525-527(1988).
RN   [3]
RP   SEQUENCE FROM N.A.
RX   MEDLINE=89128427; PubMed=2783775;
RA   Lemaire H.G., Salbaum J.M., Multhaup G., Kang J., Bayney R.M.,
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RA Unterbeck A., Beyreuther K., Mueller-Hill B.;
RT "The PreA4(695) precursor protein of Alzheimer's disease A4 amyloid
RT is encoded by 16 exons.";
RL Nucleic Acids Res. 17:517-522(1989).
RN [4]
RP SEQUENCE FROM N.A.
RX MEDLINE=97263807; PubMed=9108164;
RA Hattori M., Tsukahara F., Furuhata Y., Tanahashi H., Hirose M.,
RA Saito M., Tsukuni S., Sakaki Y.;
RT "A novel method for making nested deletions and its application for
RT sequencing of a 300 kb region of human APP locus.";
RL Nucleic Acids Res. 25:1802-1808(1997).
RN [5]
RP SEQUENCE OF 286-345 AND 365-366 FROM N.A.
RX MEDLINE=88122640; PubMed=2893290;
RA Tanzi R.E., McClatchey A.I., Lamperti E.D., Villa-Komaroff L.,
RA Gusella J.F., Neve R.L.;
RT "Protease inhibitor domain encoded by an amyloid protein precursor
RT mRNA associated with Alzheimer's disease.";
RL Nature 331:528-530(1988).
RN [6]
RP SEQUENCE OF 287-367 FROM N.A.
RX MEDLINE=88122641; PubMed=2893291;
RA Kitaguchi N., Takahashi Y., Tokushima Y., Shiojiri S., Ito H.;
RT "Novel precursor of Alzheimer's disease amyloid protein shows
RT protease inhibitory activity.";
RL Nature 331:530-532(1988).
RN [7]
RP SEQUENCE OF 284-289 AND 365-770 FROM N.A.
RX MEDLINE=87231971; PubMed=3035574;
RA Robakis N.K., Ramakrishna N., Wolfe G., Wisniewski H.M.;
RT "Molecular cloning and characterization of a cDNA encoding the
RT cerebrovascular and the neuritic plaque amyloid peptides.";
RL Proc. Natl. Acad. Sci. U.S.A. 84:4190-4194(1987).
RN [8]
RP SEQUENCE OF 507-770 FROM N.A.
RX MEDLINE=88124954; PubMed=2893379;
RA Zain S.B., Salim M., Chou W.G., Sajdel-Sulkowska E.M., Majocha R.E.,
RA Marotta C.A.;
RT "Molecular cloning of amyloid cDNA derived from mRNA of the Alzheimer
RT disease brain: coding and noncoding regions of the fetal precursor
RT mRNA are expressed in the cortex.";
RL Proc. Natl. Acad. Sci. U.S.A. 85:929-933(1988).
RN [9]
RP SEQUENCE OF 672-681.
RX MEDLINE=88035004; PubMed=3312495;
RA Pardridge W.M., Vinters H.V., Yang J., Eisenberg J., Choi T.B.,
RA Tourtellotte W.W., Huebner V., Shively J.E.;
RT "Amyloid angiopathy of Alzheimer's disease: amino acid composition
RT and partial sequence of a 4,200-dalton peptide isolated from cortical
RT microvessels.";
RL J. Neurochem. 49:1394-1401(1987).
RN [10]
RP SEQUENCE OF 739-770 FROM N.A.
RX MEDLINE=90236318; PubMed=2110105;
RA Yoshikai S.-I., Sasaki H., Doh-Ura K., Furuya H., Sakaki Y.;
RT "Genomic organization of the human amyloid beta-protein precursor
RT gene.";
RL Gene 87:257-263(1990).
RN [11]
RP SEQUENCE OF 1-10 FROM N.A.
RC TISSUE=Liver;
RX MEDLINE=89016647; PubMed=3140222;
RA Schon E.A., Mita S., Sadlock J., Herbert J.;
RT "A cDNA specifying the human amyloid beta precursor protein (ABPP)
RT encodes a 95-kDa polypeptide.";
RL Nucleic Acids Res. 16:9351-9351(1988).
RN [12]
RP SEQUENCE OF 18-50.
RX MEDLINE=87250462; PubMed=3597385;
RA van Nostrand W.E., Cunningham D.D.;
RT "Purification of protease nexin II from human fibroblasts.";
RL J. Biol. Chem. 262:8508-8514(1987).
RN [13]
RP IDENTITY OF APP WITH NEXIN-II.
RX MEDLINE=89384866; PubMed=2506449;
RA Oltersdorf T., Fritz L.C., Schenk D.B., Lieberburg I.,
RA Johnson-Wood K.L., Beattie E.C., Ward P.J., Blacher R.W., Dovey H.F.,
RA Sinha S.;
RT "The secreted form of the Alzheimer's amyloid precursor protein with
RT the Kunitz domain is protease nexin-II.";
RL Nature 341:144-147(1989).
RN [14]
RP PROTEASE-SPECIFICITY OF INHIBITOR DOMAIN.
RX MEDLINE=90211252; PubMed=1969731;
RA Kido H., Fukutomi A., Schilling J., Wang Y., Cordell B., Katunuma N.;
RT "Protease-specificity of Kunitz inhibitor domain of Alzheimer's
RT disease amyloid protein precursor.";
RL Biochem. Biophys. Res. Commun. 167:716-721(1990).
RN [15]
RP COMPLEX WITH G(O).
RX MEDLINE=93188965; PubMed=8446172;
RA Nishimoto I., Okamoto T., Matsuura Y., Takahashi S., Okamoto T.,
RA Murayama Y., Ogata E.;
RT "Alzheimer amyloid protein precursor complexes with brain GTP-binding
RT protein G(o).";
RL Nature 362:75-79(1993).
RN [16]
RP X-RAY CRYSTALLOGRAPHY (1.8 ANGSTROMS) OF 28-133.
RX MEDLINE=99215582; PubMed=10201399;
RA Rossjohn J., Cappai R., Feil S.C., Henry A., McKinstry W.J.,
RA Galatis D., Hesse L., Multhaup G., Beyreuther K., Masters C.L.,
RA Parker M.W.;
RT "Crystal structure of the N-terminal, growth factor-like domain of
RT Alzheimer amyloid precursor protein.";
RL Nat. Struct. Biol. 6:327-331(1999).
RN [17]
RP X-RAY CRYSTALLOGRAPHY (1.5 ANGSTROMS) OF 287-344.
RX MEDLINE=91104913; PubMed=2125487;
RA Hynes T.R., Randal M., Kennedy L.A., Eigenbrot C., Kossiakof A.A.;
RT "X-ray crystal structure of the protease inhibitor domain of
RT Alzheimer's amyloid beta-protein precursor.";
RL Biochemistry 29:10018-10022(1990).
RN [18]
RP STRUCTURE BY NMR OF 289-344.
RX MEDLINE=92031488; PubMed=1718421;
RA Heald S.L., Tilton R.F. Jr., Hammond L.S., Lee A., Bayney R.M.,
RA Kamarck M.E., Ramabhadran T.V., Dreyer R.N., Davis G., Unterbeck A.,
RA Tamburini P.P.;
RT "Sequential NMR resonance assignment and structure determination of
RT the Kunitz-type inhibitor domain of the Alzheimer's beta-amyloid
RT precursor protein.";
RL Biochemistry 30:10467-10478(1991).
RN [19]
RP STRUCTURE BY NMR OF 672-699.
RX MEDLINE=94281210; PubMed=7516706;
RA Talafous J., Marcinowski K.J., Klopman G., Zagorski M.G.;
RT "Solution structure of residues 1-28 of the amyloid beta-peptide.";
RL Biochemistry 33:7788-7796(1994).
RN [20]
RP STRUCTURE BY NMR OF 696-706.
RX MEDLINE=97128622; PubMed=8973180;
RA Kohno T., Kobayashi K., Maeda T., Sato K., Takashima A.;
RT "Three-dimensional structures of the amyloid beta peptide (25-35) in
RT membrane-mimicking environment.";
RL Biochemistry 35:16094-16104(1996).
RN [21]
RP STRUCTURE BY NMR OF 672-711.
RX MEDLINE=98359783; PubMed=9693002;
RA Coles M., Bicknell W., Watson A.A., Fairlie D.P., Craik D.J.;
RT "Solution structure of amyloid beta-peptide(1-40) in a water-micelle
RT environment. Is the membrane-spanning domain where we think it is?";
RL Biochemistry 37:11064-11077(1998).
RN [22]
RP STRUCTURE BY NMR OF 672-699.
RX MEDLINE=20400066; PubMed=10940222;

```
RA   Poulsen S.-A., Watson A.A., Craik D.J.;
RT   "Solution structures in aqueous SDS micelles of two amyloid beta
RT   peptides of Abeta(1-28) mutated at the alpha-secretase cleavage
RT   site.";
RL   J. Struct. Biol. 130:142-152(2000).
RN   [23]
RP   STRUCTURE BY NMR OF 681-706.
RX   MEDLINE=20400065; PubMed=10940221;
RA   Zhang S., Iwata K., Lachenmann M.J., Peng J.W., Li S., Stimson E.R.,
RA   Lu Y., Felix A.M., Maggio J.E., Lee J.P.;
RT   "The Alzheimer's peptide a beta adopts a collapsed coil structure in
RT   water.";
RL   J. Struct. Biol. 130:130-141(2000).
RN   [24]
RP   SIGNAL SEQUENCE CLEAVAGE SITE, AND TOPOLOGY.
RX   MEDLINE=88296437; PubMed=2900137;
RA   Dyrks T., Weidemann A., Multhaup G., Salbaum J.M., Lemaire H.-G.,
RA   Kang J., Mueller-Hill B., Masters C.L., Beyreuther K.;
RT   "Identification, transmembrane orientation and biogenesis of the
RT   amyloid A4 precursor of Alzheimer's disease.";

  Query Match             100.0%;  Score 217;  DB 1;  Length 770;
  Best Local Similarity   100.0%;  Pred. No. 1.1e-20;
  Matches   42;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 42
           |||||||||||||||||||||||||||||||||||||||||||
Db     672 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 713


RESULT 9
A4_MOUSE
ID   A4_MOUSE       STANDARD;      PRT;   770 AA.
AC   P12023;
DT   01-OCT-1989 (Rel. 12, Created)
DT   01-DEC-1992 (Rel. 24, Last sequence update)
DT   16-OCT-2001 (Rel. 40, Last annotation update)
DE   Alzheimer's disease amyloid A4 protein homolog precursor
DE   (Amyloidogenic glycoprotein) (AG).
GN   APP.
OS   Mus musculus (Mouse).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
OX   NCBI_TaxID=10090;
RN   [1]
RP   SEQUENCE OF 1-289 AND 365-770 FROM N.A.
RC   STRAIN=BALB/c; TISSUE=Brain;
RX   MEDLINE=92096458; PubMed=1756177;
RA   de Strooper B., van Leuven F., van den Berghe H.;
RT   "The amyloid beta protein precursor or proteinase nexin II from mouse
RT   is closer related to its human homolog than previously reported.";
RL   Biochim. Biophys. Acta 1129:141-143(1991).
RN   [2]
RP   SEQUENCE OF 1-289 AND 365-770 FROM N.A.
RC   TISSUE=Brain;
RX   MEDLINE=88106489; PubMed=3322280;
RA   Yamada T., Sasaki H., Furuya H., Miyata T., Goto I., Sakaki Y.;
RT   "Complementary DNA for the mouse homolog of the human amyloid beta
RT   protein precursor.";
RL   Biochem. Biophys. Res. Commun. 149:665-671(1987).
RN   [3]
RP   REVISIONS.
RA   Yamada T.;
RL   Submitted (MAR-1988) to the EMBL/GenBank/DDBJ databases.
RN   [4]
RP   SEQUENCE OF 289-364 FROM N.A.
RC   STRAIN=CD-1; TISSUE=Placenta;
RX   MEDLINE=89345111; PubMed=2569710;
RA   Fukuchi K., Martin G.M., Deeb S.S.;
RT   "Sequence of the protease inhibitor domain of the A4 amyloid protein
RT   precursor of Mus domesticus.";
RL   Nucleic Acids Res. 17:5396-5396(1989).
RN   [5]
RP   SEQUENCE OF 1-19 FROM N.A.
RX   MEDLINE=92209998; PubMed=1555768;
RA   Izumi R., Yamada T., Yoshikai S.I., Sasaki H., Hattori M.,
RA   Sakai Y.;
RT   "Positive and negative regulatory elements for the expression of the
RT   Alzheimer's disease amyloid precursor-encoding gene in mouse.";
RL   Gene 112:189-195(1992).
RN   [6]
RP   SEQUENCE OF 281-380 FROM N.A., AND ALTERNATIVE SPLICING.
RC   TISSUE=Brain, and Kidney;
RX   MEDLINE=89149813; PubMed=2493250;
RA   Yamada T., Sasaki H., Dohura K., Goto I., Sakaki Y.;
RT   "Structure and expression of the alternatively-spliced forms of mRNA
RT   for the mouse homolog of Alzheimer's disease amyloid beta protein
RT   precursor.";
RL   Biochem. Biophys. Res. Commun. 158:906-912(1989).
CC   -!- SUBCELLULAR LOCATION: Type I membrane protein.
CC   -!- ALTERNATIVE PRODUCTS: 5 ISOFORMS; APP(395), APP(563), APP(695),
CC       APP(751) AND APP(770) (SHOWN HERE); ARE PRODUCED BY ALTERNATIVE
CC       SPLICING.
CC   -!- TISSUE SPECIFICITY: AAA(770) IS EXPRESSED IN KIDNEY. AAA(751) IS
CC       WIDELY EXPRESSED. AAA(695) IS EXPRESSED IN BRAIN, KIDNEY AND
CC       LIVER.
CC   -!- DOMAIN: THE CLATHRIN-BINDING SITE IS ESSENTIAL FOR ITS ASSOCIATION
CC       WITH X11-ALPHA, -BETA, AND -GAMMA. THE SEQUENCE SPECIFIC
CC       RECOGNITION EXTENDS TO PEPTIDE RESIDUES THAT ARE C-TERMINAL TO THE
CC       NPXY MOTIF. THIS INTERACTION APPEARS TO BE INDEPENDENT OF
CC       PHOSPHORYLATION (BY SIMILARITY).
CC   -!- SIMILARITY: BELONGS TO THE APP FAMILY.
CC   -!- SIMILARITY: CONTAINS 1 BPTI/KUNITZ INHIBITOR DOMAIN.
CC   ----------------------------------------------------------------------
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CC   use by non-profit institutions as long as its content is in no way
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CC   entities requires a license agreement (See http://www.isb-sib.ch/announce/
CC   or send an email to license@isb-sib.ch).
CC   ----------------------------------------------------------------------
DR   EMBL; X59379; -; NOT_ANNOTATED_CDS.
DR   EMBL; M18373; AAA37139.1; -.
DR   EMBL; X15210; CAA33280.1; -.
DR   EMBL; D10603; BAA01456.1; -.
DR   EMBL; M24397; AAA39929.1; -.
DR   PIR; A27485; A27485.
DR   PIR; S04855; S04855.
DR   PIR; S19727; S19727.
DR   HSSP; P05067; 1AAP.
DR   MGD; MGI:88059; App.
DR   InterPro; IPR001868; A4_APP.
DR   InterPro; IPR001255; Beta-APP.
DR   InterPro; IPR002223; Kunitz_BPTI.
DR   Pfam; PF00014; Kunitz_BPTI; 1.
DR   Pfam; PF02177; A4_EXTRA; 1.
DR   Pfam; PF03494; Beta-APP; 1.
DR   PRINTS; PR00203; AMYLOIDA4.
DR   PRINTS; PR00759; BASICPTASE.
DR   ProDom; PD000222; Kunitz_BPTI; 1.
DR   SMART; SM00006; A4_EXTRA; 1.
DR   SMART; SM00131; KU; 1.
DR   PROSITE; PS00319; A4_EXTRA; 1.
DR   PROSITE; PS00320; A4_INTRA; 1.
DR   PROSITE; PS00280; BPTI_KUNITZ_1; 1.
DR   PROSITE; PS50279; BPTI_KUNITZ_2; 1.
KW   Glycoprotein; Amyloid; Neurone; Transmembrane; Signal;
KW   Alternative splicing; Serine protease inhibitor.
FT   SIGNAL       1    17       BY SIMILARITY.
FT   CHAIN       18   770       ALZHEIMER'S DISEASE AMYLOID A4 PROTEIN
FT                              HOMOLOG.
FT   DOMAIN      18   699       EXTRACELLULAR (POTENTIAL).
FT   TRANSMEM   700   723       POTENTIAL.
FT   DOMAIN     724   770       CYTOPLASMIC (POTENTIAL).
FT   DOMAIN     673   715       EQUIVALENT OF BETA-AMYLOID PROTEIN.
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FT   DOMAIN      287    345       BPTI/KUNITZ INHIBITOR.
FT   SITE        759    762       CLATHRIN-BINDING (BY SIMILARITY).
FT   DISULFID    291    341       BY SIMILARITY.
FT   DISULFID    300    324       BY SIMILARITY.
FT   DISULFID    316    337       BY SIMILARITY.
FT   CARBOHYD    542    542       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    571    571       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   VARSPLIC    289    289       E -> V (IN ISOFORM APP(695)).
FT   VARSPLIC    290    364       MISSING (IN ISOFORM APP(695)).
FT   VARSPLIC    346    380       MISSING (IN ISOFORM APP(751)).
SQ   SEQUENCE   770 AA;  86752 MW;  26C50DE0890CAF7A CRC64;

  Query Match             91.2%;  Score 198;  DB 1;  Length 770;
  Best Local Similarity   92.9%;  Pred. No. 3.4e-18;
  Matches   39;  Conservative    1;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 42
           |||| ||||:|| |||||||||||||||||||||||||||||
Db     672 DAEFGHDSGFEVRHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 713


RESULT 10
A4_RAT
ID   A4_RAT          STANDARD;      PRT;   770 AA.
AC   P08592;
DT   01-AUG-1988 (Rel. 08, Created)
DT   01-DEC-1992 (Rel. 24, Last sequence update)
DT   16-OCT-2001 (Rel. 40, Last annotation update)
DE   Alzheimer's disease amyloid A4 protein homolog precursor
DE   (Amyloidogenic glycoprotein) (AG).
GN   APP.
OS   Rattus norvegicus (Rat).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.
OX   NCBI_TaxID=10116;
RN   [1]
RP   SEQUENCE OF 1-289 AND 365-770 FROM N.A.
RC   TISSUE=Brain;
RX   MEDLINE=88312583; PubMed=2900758;
RA   Shivers B.D., Hilbich C., Multhaup G., Salbaum J.M., Beyreuther K.,
RA   Seeburg P.H.;
RT   "Alzheimer's disease amyloidogenic glycoprotein: expression pattern
RT   in rat brain suggests a role in cell contact.";
RL   EMBO J. 7:1365-1370(1988).
RN   [2]
RP   SEQUENCE OF 289-364 FROM N.A.
RC   TISSUE=Liver;
RX   MEDLINE=89183625; PubMed=2648331;
RA   Kang J., Mueller-Hill B.;
RT   "The sequence of the two extra exons in rat preA4.";
RL   Nucleic Acids Res. 17:2130-2130(1989).
CC   -!- SUBCELLULAR LOCATION: Type I membrane protein.
CC   -!- ALTERNATIVE PRODUCTS: 5 ISOFORMS; APP(395), APP(563), APP(695),
CC       APP(751) AND APP(770) (SHOWN HERE); ARE PRODUCED BY ALTERNATIVE
CC       SPLICING.
CC   -!- DOMAIN: THE CLATHRIN-BINDING SITE IS ESSENTIAL FOR ITS ASSOCIATION
CC       WITH X11-ALPHA, -BETA, AND -GAMMA. THE SEQUENCE SPECIFIC
CC       RECOGNITION EXTENDS TO PEPTIDE RESIDUES THAT ARE C-TERMINAL TO THE
CC       NPXY MOTIF. THIS INTERACTION APPEARS TO BE INDEPENDENT OF
CC       PHOSPHORYLATION (BY SIMILARITY).
CC   -!- SIMILARITY: BELONGS TO THE APP FAMILY.
CC   -!- SIMILARITY: CONTAINS 1 BPTI/KUNITZ INHIBITOR DOMAIN.
CC   ----------------------------------------------------------------------
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CC   entities requires a license agreement (See http://www.isb-sib.ch/announce/
CC   or send an email to license@isb-sib.ch).
CC   ----------------------------------------------------------------------
DR   EMBL; X07648; CAA30488.1; -.
DR   EMBL; X14066; CAA32229.1; -.
DR   PIR; S00550; S00550.
DR   PIR; S03607; S03607.
DR   HSSP; P05067; 1AAP.
DR   InterPro; IPR001868; A4_APP.
DR   InterPro; IPR001255; Beta-APP.
DR   InterPro; IPR002223; Kunitz_BPTI.
DR   Pfam; PF00014; Kunitz_BPTI; 1.
DR   Pfam; PF02177; A4_EXTRA; 1.
DR   Pfam; PF03494; Beta-APP; 1.
DR   PRINTS; PR00203; AMYLOIDA4.
DR   PRINTS; PR00759; BASICPTASE.
DR   ProDom; PD000222; Kunitz_BPTI; 1.
DR   SMART; SM00006; A4_EXTRA; 1.
DR   SMART; SM00131; KU; 1.
DR   PROSITE; PS00319; A4_EXTRA; 1.
DR   PROSITE; PS00320; A4_INTRA; 1.
DR   PROSITE; PS00280; BPTI_KUNITZ_1; 1.
DR   PROSITE; PS50279; BPTI_KUNITZ_2; 1.
KW   Glycoprotein; Amyloid; Neurone; Transmembrane; Signal;
KW   Alternative splicing; Serine protease inhibitor.
FT   SIGNAL        1     17       BY SIMILARITY.
FT   CHAIN        18    770       ALZHEIMER'S DISEASE AMYLOID A4 PROTEIN
FT                                HOMOLOG.
FT   DOMAIN       18    699       EXTRACELLULAR (POTENTIAL).
FT   TRANSMEM    700    723       POTENTIAL.
FT   DOMAIN      724    770       CYTOPLASMIC (POTENTIAL).
FT   DOMAIN      673    715       EQUIVALENT OF BETA-AMYLOID PROTEIN.
FT   DOMAIN      287    345       BPTI/KUNITZ INHIBITOR.
FT   SITE        759    762       CLATHRIN-BINDING (BY SIMILARITY).
FT   DISULFID    291    341       BY SIMILARITY.
FT   DISULFID    300    324       BY SIMILARITY.
FT   DISULFID    316    337       BY SIMILARITY.
FT   CARBOHYD    542    542       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    571    571       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   VARSPLIC    289    289       E -> V (IN ISOFORM APP(695)).
FT   VARSPLIC    290    364       MISSING (IN ISOFORM APP(695)).
SQ   SEQUENCE   770 AA;  86704 MW;  C26C9D6BB2D929A7 CRC64;

  Query Match             91.2%;  Score 198;  DB 1;  Length 770;
  Best Local Similarity   92.9%;  Pred. No. 3.4e-18;
  Matches   39;  Conservative    1;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 42
           |||| ||||:|| |||||||||||||||||||||||||||||
Db     672 DAEFGHDSGFEVRHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 713


RESULT 11
TR2M_AGRT4
ID   TR2M_AGRT4      STANDARD;      PRT;   755 AA.
AC   P04029;
DT   23-OCT-1986 (Rel. 02, Created)
DT   23-OCT-1986 (Rel. 02, Last sequence update)
DT   15-JUN-2002 (Rel. 41, Last annotation update)
DE   Tryptophan 2-monooxygenase (EC 1.13.12.3).
GN   TMS1.
OS   Agrobacterium tumefaciens (strain Ach5), and
OS   Agrobacterium tumefaciens.
OG   Plasmid pTiAch5, and Plasmid pTiA6NC.
OC   Bacteria; Proteobacteria; alpha subdivision; Rhizobiaceae group;
OC   Rhizobiaceae; Rhizobium.
OX   NCBI_TaxID=176298, 358;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   STRAIN=Ach5; PLASMID=pTiAch5;
RX   MEDLINE=84207942; PubMed=6327292;
RA   Gielen J., de Beuckeleer M., Seurinck J., Deboeck F., de Greve H.,
RA   Lemmers M., van Montagu M., Schell J.;
RT   "The complete nucleotide sequence of the TL-DNA of the Agrobacterium
RT   tumefaciens plasmid pTiAch5.";
RL   EMBO J. 3:835-846(1984).
RN   [2]
RP   SEQUENCE FROM N.A.
```

```
RC   PLASMID=pTiA6NC;
RX   MEDLINE=84170374; PubMed=6584906;
RA   Klee H., Montoya A., Horodyski F., Lichtenstein C., Garfinkel D.,
RA   Fuller S., Flores C., Peschon J., Nester E., Gordon M.;
RT   "Nucleotide sequence of the tms genes of the pTiA6NC octopine Ti
RT   plasmid: two gene products involved in plant tumorigenesis.";
RL   Proc. Natl. Acad. Sci. U.S.A. 81:1728-1732(1984).
CC   -!- CATALYTIC ACTIVITY: L-tryptophan + O(2) = indole-3-acetamide +
CC       CO(2) + H(2)O.
CC   -!- PATHWAY: FIRST STEP IN THE BIOSYNTHESIS OF AUXINS FROM TRYPTOPHAN.
CC   -!- MISCELLANEOUS: THE SEQUENCE SHOWN IS THAT OF ACH5.
CC   -!- SIMILARITY: SIGNIFICANT HOMOLOGY TO THE ADENINE BINDING REGION OF
CC       P-HYDROXYBENZOATE HYDROXYLASE FROM P. FLUORESCENS. IT SEEMS THAT
CC       THIS PROTEIN BINDS ADENINE EITHER AS SUBSTRATE OR COFACTOR.
CC   ---------------------------------------------------------------------
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CC   or send an email to license@isb-sib.ch).
CC   ---------------------------------------------------------------------
DR   EMBL; K02554; AAA92550.1; -.
DR   PIR; A04497; QQAG4T.
DR   InterPro; IPR002937; Amino_oxidase.
DR   InterPro; IPR000624; Glycosidase.
DR   InterPro; IPR000205; NAD_binding.
DR   Pfam; PF01593; Amino_oxidase; 1.
DR   Pfam; PF02027; RolB_RolC; 1.
KW   Oxidoreductase; Monooxygenase; Auxin biosynthesis; Crown gall tumor;
KW   T-DNA; Plasmid.
FT   VARIANT     718    719       NR -> IQ (IN PTIA6NC).
FT   VARIANT     721    721       P -> A (IN PTIA6NC).
SQ   SEQUENCE   755 AA;  83947 MW;  9FD2B83FEA001A4D CRC64;

  Query Match            28.6%;  Score 62;  DB 1;  Length 755;
  Best Local Similarity   41.7%;  Pred. No. 1.9;
  Matches   15;  Conservative    6;  Mismatches    9;  Indels    6;  Gaps    1;

Qy       7 DSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 42
           |||      :: || |||   | |:||  : |:|:|
Db     223 DSG------RIGFFPEDVPKPKVAVIGAGISGLVVA 252


RESULT 12
TR2N_AGRVI
ID   TR2N_AGRVI     STANDARD;      PRT;   755 AA.
AC   P25017;
DT   01-MAR-1992 (Rel. 21, Created)
DT   01-MAR-1992 (Rel. 21, Last sequence update)
DT   15-JUN-2002 (Rel. 41, Last annotation update)
DE   Tryptophan 2-monooxygenase (EC 1.13.12.3).
GN   IAAM.
OS   Agrobacterium vitis (Rhizobium vitis).
OG   Plasmid pTiTM4.
OC   Bacteria; Proteobacteria; alpha subdivision; Rhizobiaceae group;
OC   Rhizobiaceae; Rhizobium.
OX   NCBI_TaxID=373;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   STRAIN=TM4;
RX   MEDLINE=91329707; PubMed=1868204;
RA   Bonnard G., Vincent F., Otten L.;
RT   "Sequence of Agrobacterium tumefaciens biotype III auxin genes.";
RL   Plant Mol. Biol. 16:733-738(1991).
RN   [2]
RP   SEQUENCE FROM N.A.
RC   STRAIN=CG474;
RA   Otten L., de Ruffray P.;
RL   Submitted (FEB-1997) to the EMBL/GenBank/DDBJ databases.
CC   -!- CATALYTIC ACTIVITY: L-tryptophan + O(2) = indole-3-acetamide +
CC       CO(2) + H(2)O.
CC   -!- PATHWAY: FIRST STEP IN THE BIOSYNTHESIS OF AUXINS FROM TRYPTOPHAN.
CC   -!- SIMILARITY: SIGNIFICANT HOMOLOGY TO THE ADENINE BINDING REGION OF
CC       P-HYDROXYBENZOATE HYDROXYLASE FROM P. FLUORESCENS. IT SEEMS THAT
CC       THIS PROTEIN BINDS ADENINE EITHER AS SUBSTRATE OR COFACTOR.
CC   -!- SIMILARITY: STRONG, WITH ITS COUNTERPARTS FROM A.TUMEFACIENS
CC       PLASMIDS PTI15955, PTIACH5 AND PTIA6NC.
CC   -!- CAUTION: THE PLASMID PTITM4 CARRIES TWO T-REGIONS, THE TA AND
CC       TB REGION, BOTH OF WHICH HAVE A FUNCTIONAL IAAM GENE, WITH LOW
CC       HOMOLOGY BETWEEN THEM.
CC   ---------------------------------------------------------------------
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CC   or send an email to license@isb-sib.ch).
CC   ---------------------------------------------------------------------
DR   EMBL; X56185; CAA39646.1; -.
DR   EMBL; U83987; AAB41874.1; -.
DR   PIR; S15450; DAAGWT.
DR   PIR; S15002; S15002.
DR   InterPro; IPR002937; Amino_oxidase.
DR   InterPro; IPR000624; Glycosidase.
DR   InterPro; IPR000205; NAD_binding.
DR   Pfam; PF01593; Amino_oxidase; 1.
DR   Pfam; PF02027; RolB_RolC; 1.
KW   Oxidoreductase; Monooxygenase; Auxin biosynthesis; Crown gall tumor;
KW   T-DNA; Plasmid.
SQ   SEQUENCE   755 AA;  83972 MW;  6FA63E502343136F CRC64;

  Query Match            28.1%;  Score 61;  DB 1;  Length 755;
  Best Local Similarity   41.7%;  Pred. No. 2.6;
  Matches   15;  Conservative    6;  Mismatches    9;  Indels    6;  Gaps    1;

Qy       7 DSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 42
           |||      :: || |||   | |:||  : |:|:|
Db     223 DSG------RIGFFPEDVPRPKVAVIGAGISGLVVA 252


RESULT 13
POLG_PVYCH
ID   POLG_PVYCH     STANDARD;      PRT;   327 AA.
AC   P21294;
DT   01-MAY-1991 (Rel. 18, Created)
DT   01-MAY-1991 (Rel. 18, Last sequence update)
DT   15-JUN-2002 (Rel. 41, Last annotation update)
DE   Genome polyprotein [Contains: Nuclear inclusion protein B (NI-B) (NIB)
DE   (RNA-directed RNA polymerase) (EC 2.7.7.48); Coat protein (CP)]
DE   (Fragment).
OS   Potato virus Y (strain Chinese isolate) (PVY).
OC   Viruses; ssRNA positive-strand viruses, no DNA stage; Potyviridae;
OC   Potyvirus.
OX   NCBI_TaxID=12218;
RN   [1]
RP   SEQUENCE FROM N.A.
RX   MEDLINE=91016851; PubMed=2216735;
RA   Zhou X.R., Fang R.X., Wang C.Q., Mang K.Q.;
RT   "cDNA sequence of the 3'-coding region of PVY genome (the Chinese
RT   isolate).";
RL   Nucleic Acids Res. 18:5554-5554(1990).
CC   -!- CATALYTIC ACTIVITY: N nucleoside triphosphate = N diphosphate +
CC       {RNA}(N).
CC   -!- PTM: THE VIRAL RNA OF POTYVIRUSES IS EXPRESSED AS A SINGLE
CC       POLYPROTEIN WHICH UNDERGOES POSTTRANSLATIONAL PROTEOLYTIC
CC       PROCESSING RESULTING IN THE PRODUCTION OF AT LEAST EIGHT
CC       INDIVIDUAL PROTEINS.
CC   -!- SIMILARITY: BELONGS TO THE POTYVIRUSES POLYPROTEIN FAMILY.
CC   ---------------------------------------------------------------------
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CC   between the Swiss Institute of Bioinformatics and the EMBL outstation -
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CC   ----------------------------------------------------------------------
DR   EMBL; X54058; CAA37993.1; -.
DR   PIR; S11549; S11549.
DR   InterPro; IPR001592; Poty_coat.
DR   Pfam; PF00767; Poty_coat; 1.
KW   Transferase; RNA-directed RNA polymerase; Coat protein; Polyprotein.
FT   NON_TER       1      1
FT   CHAIN        <1     60       NUCLEAR INCLUSION PROTEIN B.
FT   CHAIN        61    327       COAT PROTEIN.
SQ   SEQUENCE   327 AA;  36868 MW;  8F8355E2DE6F2F18 CRC64;

  Query Match             26.3%;  Score 57;  DB 1;  Length 327;
  Best Local Similarity   53.1%;  Pred. No. 3.7;
  Matches   17;  Conservative    0;  Mismatches    5;  Indels   10;  Gaps    3;

Qy       1 DAEFRHDSGYEVHHQKLVFFAED----VGSNK 28
           | ||  || ||||||     | |    || ||
Db      47 DDEFEFDS-YEVHHQ-----ANDTIDAVGDNK 72


RESULT 14
Y226_MYCPN
ID   Y226_MYCPN     STANDARD;      PRT;   503 AA.
AC   P75462;
DT   01-NOV-1997 (Rel. 35, Created)
DT   01-NOV-1997 (Rel. 35, Last sequence update)
DT   16-OCT-2001 (Rel. 40, Last annotation update)
DE   Hypothetical protein MG226 homolog (F10_orf503).
GN   MPN319 OR MPS17.
OS   Mycoplasma pneumoniae.
OC   Bacteria; Firmicutes; Mollicutes; Mycoplasmataceae; Mycoplasma.
OX   NCBI_TaxID=2104;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   STRAIN=ATCC 29342 / M129;
RX   MEDLINE=97105885; PubMed=8948633;
RA   Himmelreich R., Hilbert H., Plagens H., Pirkl E., Li B.-C.,
RA   Herrmann R.;
RT   "Complete sequence analysis of the genome of the bacterium Mycoplasma
RT   pneumoniae.";
RL   Nucleic Acids Res. 24:4420-4449(1996).
CC   -!- SUBCELLULAR LOCATION: Integral membrane protein (Potential).
CC   -!- SIMILARITY: TO M.GENITALIUM MG225.
CC   ----------------------------------------------------------------------
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CC   entities requires a license agreement (See http://www.isb-sib.ch/announce/
CC   or send an email to license@isb-sib.ch).
CC   ----------------------------------------------------------------------
DR   EMBL; AE000051; AAB96165.1; -.
DR   InterPro; IPR002293; AA/rel_prmease1.
DR   InterPro; IPR004841; Permease.
DR   Pfam; PF00324; aa_permeases; 1.
KW   Hypothetical protein; Transmembrane; Complete proteome.
FT   TRANSMEM     20     40       POTENTIAL.
FT   TRANSMEM     43     63       POTENTIAL.
FT   TRANSMEM    106    126       POTENTIAL.
FT   TRANSMEM    138    158       POTENTIAL.
FT   TRANSMEM    166    186       POTENTIAL.
FT   TRANSMEM    215    235       POTENTIAL.
FT   TRANSMEM    249    269       POTENTIAL.
FT   TRANSMEM    301    321       POTENTIAL.
FT   TRANSMEM    359    379       POTENTIAL.
FT   TRANSMEM    405    425       POTENTIAL.
FT   TRANSMEM    443    463       POTENTIAL.
FT   TRANSMEM    468    488       POTENTIAL.
SQ   SEQUENCE   503 AA;  54960 MW;  4BC1BFDE036985B2 CRC64;

  Query Match             26.3%;  Score 57;  DB 1;  Length 503;
  Best Local Similarity   61.1%;  Pred. No. 5.7;
  Matches   11;  Conservative    3;  Mismatches    4;  Indels    0;  Gaps    0;

Qy      24 VGSNKGAIIGLMVGGVVI 41
           |  | ||:|||:||| |:
Db     131 VKDNNGALIGLLVGGFVL 148


RESULT 15
SLG1_YEAST
ID   SLG1_YEAST     STANDARD;      PRT;   378 AA.
AC   P54867;
DT   01-OCT-1996 (Rel. 34, Created)
DT   01-OCT-1996 (Rel. 34, Last sequence update)
DT   01-NOV-1997 (Rel. 35, Last annotation update)
DE   SLG1 protein precursor.
GN   SLG1 OR YOR008C OR UNF378.
OS   Saccharomyces cerevisiae (Baker's yeast).
OC   Eukaryota; Fungi; Ascomycota; Saccharomycotina; Saccharomycetes;
OC   Saccharomycetales; Saccharomycetaceae; Saccharomyces.
OX   NCBI_TaxID=4932;
RN   [1]
RP   SEQUENCE FROM N.A.
RA   de Bettignies G., Bergez-Aullo P., Barthe C., Louvet O.,
RA   Peypouquet M.F., Morel C., Doignon F., Crouzet M.;
RL   Submitted (OCT-1995) to the EMBL/GenBank/DDBJ databases.
RN   [2]
RP   SEQUENCE FROM N.A.
RX   MEDLINE=97051599; PubMed=8896276;
RA   Sterky F., Holmberg A., Pettersson B., Uhlen M.;
RT   "The sequence of a 30 kb fragment on the left arm of chromosome XV
RT   from Saccharomyces cerevisiae reveals 15 open reading frames, five of
RT   which correspond to previously identified genes.";
RL   Yeast 12:1091-1095(1996).
CC   ----------------------------------------------------------------------
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CC   the European Bioinformatics Institute.  There are no  restrictions on  its
CC   use  by  non-profit  institutions as long  as its content  is  in  no  way
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CC   entities requires a license agreement (See http://www.isb-sib.ch/announce/
CC   or send an email to license@isb-sib.ch).
CC   ----------------------------------------------------------------------
DR   EMBL; U39481; AAA85862.1; -.
DR   EMBL; U43491; AAC49488.1; -.
DR   EMBL; Z74916; CAA99196.1; -.
DR   SGD; S0005534; SLG1.
DR   InterPro; IPR002889; WSC.
DR   Pfam; PF01822; WSC; 1.
DR   SMART; SM00321; WSC; 1.
KW   Glycoprotein; Signal.
FT   SIGNAL        1     19       POTENTIAL.
FT   CHAIN        20    378       SLG1 PROTEIN.
FT   CARBOHYD     65     65       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    354    354       N-LINKED (GLCNAC. . .) (POTENTIAL).
SQ   SEQUENCE   378 AA;  39270 MW;  EEE164F2374CCCE3 CRC64;

  Query Match             26.0%;  Score 56.5;  DB 1;  Length 378;
  Best Local Similarity   42.4%;  Pred. No. 5;
  Matches   14;  Conservative    5;  Mismatches    5;  Indels    9;  Gaps    1;

Qy       8 SGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVV 40
           || : | :|          :| |||:| :|||||
Db     251 SGSKTHKKK---------ANVGAIVGGVVGGVV 274


Search completed: April 21, 2003, 12:06:47
Job time : 14 secs
```

GenCore version 5.1.4_p5_4578
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OM protein - protein search, using sw model

Run on: April 21, 2003, 12:03:55 ; Search time 28 Seconds
(without alignments)
309.071 Million cell updates/sec

Title: US-09-580-018-42
Perfect score: 217
Sequence: 1 DAEFRHDSGYEVHHQKLVFF.....DVGSNKGAIIGLMVGGVVIA 42

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 671580 seqs, 206047115 residues

Total number of hits satisfying chosen parameters: 671580

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : SPTREMBL_21:*
1: sp_archea:*
2: sp_bacteria:*
3: sp_fungi:*
4: sp_human:*
5: sp_invertebrate:*
6: sp_mammal:*
7: sp_mhc:*
8: sp_organelle:*
9: sp_phage:*
10: sp_plant:*
11: sp_rodent:*
12: sp_virus:*
13: sp_vertebrate:*
14: sp_unclassified:*
15: sp_rvirus:*
16: sp_bacteriap:*
17: sp_archeap:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	217	100.0	82	4	Q16014	Q16014 homo sapien
2	217	100.0	82	4	Q16019	Q16019 homo sapien
3	217	100.0	82	4	Q16020	Q16020 homo sapien
4	217	100.0	82	4	P78438	P78438 homo sapien
5	217	100.0	534	13	O93296	O93296 gallus gall
6	217	100.0	569	13	Q9PVL1	Q9pvl1 gallus gall
7	217	100.0	695	6	Q95KN7	Q95kn7 macaca fasc
8	217	100.0	695	11	Q60496	Q60496 cavia sp. p
9	217	100.0	695	13	Q9DGJ8	Q9dgj8 gallus gall
10	217	100.0	751	13	Q9DGJ7	Q9dgj7 gallus gall
11	217	100.0	770	6	Q9TUI0	Q9tui0 sus scrofa
12	207	95.4	97	4	Q13778	Q13778 homo sapien
13	198	91.2	79	11	O35463	O35463 cricetulus
14	198	91.2	607	11	Q99K32	Q99k32 mus musculu
15	198	91.2	693	13	Q98SG0	Q98sg0 xenopus lae
16	198	91.2	695	11	P97487	P97487 mus musculu
17	198	91.2	747	13	Q91963	Q91963 xenopus. ap
18	195	89.9	695	13	Q98SF9	Q98sf9 xenopus lae
19	188	86.6	699	13	O57394	O57394 narke japon
20	176	81.1	33	4	Q9UC33	Q9uc33 homo sapien
21	175	80.6	780	13	O73683	O73683 tetraodon f
22	171	78.8	737	13	O93279	O93279 fugu rubrip
23	162	74.7	30	4	Q9UCA9	Q9uca9 homo sapien
24	157.5	72.6	357	13	Q8UUI8	Q8uui8 brachydanio
25	157.5	72.6	472	13	Q8UUS0	Q8uus0 brachydanio
26	157.5	72.6	612	13	Q9I9E7	Q9i9e7 brachydanio
27	157.5	72.6	738	13	Q90W28	Q90w28 brachydanio
28	156	71.9	239	13	Q8UUI7	Q8uui7 brachydanio
29	156	71.9	694	13	Q8UUR9	Q8uur9 brachydanio
30	147	67.7	28	4	Q9UCD1	Q9ucd1 homo sapien
31	121	55.8	49	6	O97917	O97917 bos taurus
32	106	48.8	19	4	Q9UCC8	Q9ucc8 homo sapien
33	95	43.8	35	4	Q8WZ99	Q8wz99 homo sapien
34	64	29.5	328	2	Q9RPS4	Q9rps4 enterococcu
35	63	29.0	321	16	Q8RG41	Q8rg41 fusobacteri
36	63	29.0	755	2	Q9R717	Q9r717 agrobacteri
37	63	29.0	755	2	Q9R472	Q9r472 agrobacteri
38	63	29.0	755	2	Q9R694	Q9r694 agrobacteri
39	63	29.0	755	16	Q8U6A3	Q8u6a3 agrobacteri
40	62	28.6	755	2	Q44388	Q44388 agrobacteri
41	60	27.6	755	2	Q9WWA1	Q9wwa1 agrobacteri
42	59	27.2	20	4	Q9UCB6	Q9ucb6 homo sapien
43	57.5	26.5	895	10	Q9AWB6	Q9awb6 lycopersico
44	57	26.3	195	10	O22662	O22662 arabidopsis
45	57	26.3	332	12	Q9DQN5	Q9dqn5 potato viru

ALIGNMENTS

RESULT 1
Q16014
ID Q16014 PRELIMINARY; PRT; 82 AA.
AC Q16014;
DT 01-NOV-1996 (TrEMBLrel. 01, Created)
DT 01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
DT 01-JUN-2002 (TrEMBLrel. 21, Last annotation update)
DE Beta-amyloid peptide (Fragment).
OS Homo sapiens (Human).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX NCBI_TaxID=9606;
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE=93236601; PubMed=8476439;
RA Denman R.B., Rosenzcwaig R., Miller D.L.;
RT "A system for studying the effect(s) of familial Alzheimer disease
RT mutations on the processing of the beta-amyloid peptide precursor.";
RL Biochem. Biophys. Res. Commun. 192:96-103(1993).
DR EMBL; S60721; AAB26263.2; -.
DR HSSP; P05067; 1BA4.
DR InterPro; IPR001255; Beta-APP.
DR Pfam; PF03494; Beta-APP; 1.
FT NON_TER 1 1
FT NON_TER 82 82
SQ SEQUENCE 82 AA; 8972 MW; F534AA5B3EA9230A CRC64;

Query Match 100.0%; Score 217; DB 4; Length 82;
Best Local Similarity 100.0%; Pred. No. 1.9e-22;
Matches 42; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Qy       1 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 42
           |||||||||||||||||||||||||||||||||||||||||||
Db      18 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 59
```

RESULT 2
Q16019
ID Q16019 PRELIMINARY; PRT; 82 AA.

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AC   Q16019;
DT   01-NOV-1996 (TrEMBLrel. 01, Created)
DT   01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
DT   01-JUN-2002 (TrEMBLrel. 21, Last annotation update)
DE   Beta-amyloid peptide (Fragment).
GN   BETA APP.
OS   Homo sapiens (Human).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX   NCBI_TaxID=9606;
RN   [1]
RP   SEQUENCE FROM N.A.
RX   MEDLINE=93236601; PubMed=8476439;
RA   Denman R.B., Rosenzcwaig R., Miller D.L.;
RT   "A system for studying the effect(s) of familial Alzheimer disease
RT   mutations on the processing of the beta-amyloid peptide precursor.";
RL   Biochem. Biophys. Res. Commun. 192:96-103(1993).
DR   EMBL; S61380; AAB26264.2; -.
DR   HSSP; P05067; 1BA4.
DR   InterPro; IPR001255; Beta-APP.
DR   Pfam; PF03494; Beta-APP; 1.
FT   NON_TER       1      1
FT   NON_TER      82     82
SQ   SEQUENCE   82 AA;  8938 MW;  F534AA50E579230A CRC64;

  Query Match             100.0%;  Score 217;  DB 4;  Length 82;
  Best Local Similarity   100.0%;  Pred. No. 1.9e-22;
  Matches   42;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 42
          |||||||||||||||||||||||||||||||||||||||||
Db     18 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 59


RESULT 3
Q16020
ID   Q16020      PRELIMINARY;      PRT;    82 AA.
AC   Q16020;
DT   01-NOV-1996 (TrEMBLrel. 01, Created)
DT   01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
DT   01-JUN-2002 (TrEMBLrel. 21, Last annotation update)
DE   Beta-amyloid peptide (Fragment).
GN   BETA APP.
OS   Homo sapiens (Human).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX   NCBI_TaxID=9606;
RN   [1]
RP   SEQUENCE FROM N.A.
RX   MEDLINE=93236601; PubMed=8476439;
RA   Denman R.B., Rosenzcwaig R., Miller D.L.;
RT   "A system for studying the effect(s) of familial Alzheimer disease
RT   mutations on the processing of the beta-amyloid peptide precursor.";
RL   Biochem. Biophys. Res. Commun. 192:96-103(1993).
DR   EMBL; S61383; AAB26265.2; -.
DR   HSSP; P05067; 1BA4.
DR   InterPro; IPR001255; Beta-APP.
DR   Pfam; PF03494; Beta-APP; 1.
FT   NON_TER       1      1
FT   NON_TER      82     82
SQ   SEQUENCE   82 AA;  8882 MW;  F534AA5AE5D9230A CRC64;

  Query Match             100.0%;  Score 217;  DB 4;  Length 82;
  Best Local Similarity   100.0%;  Pred. No. 1.9e-22;
  Matches   42;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 42
          |||||||||||||||||||||||||||||||||||||||||
Db     18 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 59


RESULT 4
P78438
ID   P78438      PRELIMINARY;      PRT;    82 AA.
AC   P78438;
DT   01-MAY-1997 (TrEMBLrel. 03, Created)
DT   01-MAY-1997 (TrEMBLrel. 03, Last sequence update)
DT   01-JUN-2002 (TrEMBLrel. 21, Last annotation update)
DE   Amyloid protein (Beta-amyloid protein) (Fragment).
GN   APP.
OS   Homo sapiens (Human).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX   NCBI_TaxID=9606;
RN   [1]
RP   SEQUENCE FROM N.A.
RX   MEDLINE=89392030; PubMed=2675837;
RA   Johnstone E.M., Chaney M.O., Moore R.E., Ward K.E., Norris F.H.,
RA   Little S.P.;
RT   "Alzheimer's disease amyloid peptide is encoded by two exons and shows
RT   similarity to soybean trypsin inhibitor.";
RL   Biochem. Biophys. Res. Commun. 163:1248-1255(1989).
RN   [2]
RP   SEQUENCE OF 19-48 FROM N.A.
RX   MEDLINE=87120329; PubMed=2949367;
RA   Tanzi R.E., Gusella J.F., Watkins P.C., Bruns G.A., George-Hyslop P.,
RA   Van Keuren M.L., Patterson D., Pagan S., Kurnit D.M., Neve R.L.;
RT   "Amyloid beta protein gene: cDNA, mRNA distribution, and genetic
RT   linkage near the Alzheimer locus.";
RL   Science 235:880-884(1987).
RN   [3]
RP   SEQUENCE OF 32-63 FROM N.A.
RX   MEDLINE=93035397; PubMed=1415269;
RA   Kamino K., Orr H.T., Payami H., Wijsman E.M., Alonso M.E., Pulst S.M.,
RA   Anderson L., O'dahl S., Nemens E., White J.A.;
RT   "Linkage and mutational analysis of familial Alzheimer disease
RT   kindreds for the APP gene region.";
RL   Am. J. Hum. Genet. 51:998-1014(1992).
DR   EMBL; M29270; AAA51768.1; -.
DR   EMBL; M29269; AAA51768.1; JOINED.
DR   EMBL; M15532; AAA51564.1; -.
DR   EMBL; S45136; AAB23646.1; -.
DR   HSSP; P05067; 1BA4.
DR   InterPro; IPR001255; Beta-APP.
DR   Pfam; PF03494; Beta-APP; 1.
FT   NON_TER       1      1
SQ   SEQUENCE   82 AA;  8994 MW;  8DA9E42B813A070E CRC64;

  Query Match             100.0%;  Score 217;  DB 4;  Length 82;
  Best Local Similarity   100.0%;  Pred. No. 1.9e-22;
  Matches   42;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 42
          |||||||||||||||||||||||||||||||||||||||||
Db     17 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 58


RESULT 5
O93296
ID   O93296      PRELIMINARY;      PRT;   534 AA.
AC   O93296;
DT   01-NOV-1998 (TrEMBLrel. 08, Created)
DT   01-NOV-1998 (TrEMBLrel. 08, Last sequence update)
DT   01-JUN-2002 (TrEMBLrel. 21, Last annotation update)
DE   Amyloid protein (Fragment).
OS   Gallus gallus (Chicken).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Archosauria; Aves; Neognathae; Galliformes; Phasianidae; Phasianinae;
OC   Gallus.
OX   NCBI_TaxID=9031;
RN   [1]
RP   SEQUENCE FROM N.A.
RX   MEDLINE=98337885; PubMed=9671674;
RA   Barnes N.Y., Li L., Yoshikawa K., Schwartz L.M., Oppenheim R.W.,
RA   Milligan C.E.;
RT   "Increased production of amyloid precursor protein provides a
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RT   substrate for caspase-3 in dying motoneurons.";
RL   J. Neurosci. 18:5869-5880(1998).
DR   EMBL; AF042098; AAC25052.1; -.
DR   HSSP; P05067; 1BA4.
DR   InterPro; IPR001868; A4_APP.
DR   InterPro; IPR001255; Beta-APP.
DR   Pfam; PF02177; A4_EXTRA; 1.
DR   Pfam; PF03494; Beta-APP; 1.
DR   PRINTS; PR00203; AMYLOIDA4.
DR   PROSITE; PS00319; A4_EXTRA; 1.
DR   PROSITE; PS00320; A4_INTRA; 1.
FT   NON_TER       1      1
SQ   SEQUENCE   534 AA;  60597 MW;  FB53ECC2E66D4C92 CRC64;

  Query Match             100.0%;  Score 217;  DB 13;  Length 534;
  Best Local Similarity   100.0%;  Pred. No. 1.8e-21;
  Matches   42;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 42
          |||||||||||||||||||||||||||||||||||||||||||
Db    436 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 477


RESULT 6
Q9PVL1
ID   Q9PVL1      PRELIMINARY;      PRT;   569 AA.
AC   Q9PVL1;
DT   01-MAY-2000 (TrEMBLrel. 13, Created)
DT   01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
DT   01-JUN-2002 (TrEMBLrel. 21, Last annotation update)
DE   Amyloid protein (Fragment).
GN   APP.
OS   Gallus gallus (Chicken).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Archosauria; Aves; Neognathae; Galliformes; Phasianidae; Phasianinae;
OC   Gallus.
OX   NCBI_TaxID=9031;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   TISSUE=BRAIN;
RA   Coulson E.J., Paliga K., Beyreuther K., Masters C.L.;
RT   "What the evolution of the amyloid protein precursor supergene family
RT   tells us about its function.";
RL   Neurochem. Int. 0:0-0(2000).
DR   EMBL; AF030341; AAF12698.1; -.
DR   HSSP; P05067; 1BA4.
DR   InterPro; IPR001868; A4_APP.
DR   InterPro; IPR001255; Beta-APP.
DR   Pfam; PF02177; A4_EXTRA; 1.
DR   Pfam; PF03494; Beta-APP; 1.
DR   PRINTS; PR00203; AMYLOIDA4.
DR   SMART; SM00006; A4_EXTRA; 1.
DR   PROSITE; PS00319; A4_EXTRA; 1.
DR   PROSITE; PS00320; A4_INTRA; 1.
FT   NON_TER       1      1
SQ   SEQUENCE   569 AA;  64753 MW;  0AB8BB851863A19D CRC64;

  Query Match             100.0%;  Score 217;  DB 13;  Length 569;
  Best Local Similarity   100.0%;  Pred. No. 1.9e-21;
  Matches   42;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 42
          |||||||||||||||||||||||||||||||||||||||||||
Db    472 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 513


RESULT 7
Q95KN7
ID   Q95KN7      PRELIMINARY;      PRT;   695 AA.
AC   Q95KN7;
DT   01-DEC-2001 (TrEMBLrel. 19, Created)
DT   01-DEC-2001 (TrEMBLrel. 19, Last sequence update)
DT   01-JUN-2002 (TrEMBLrel. 21, Last annotation update)
DE   Amyloid b-protein precursor.
OS   Macaca fascicularis (Crab eating macaque) (Cynomolgus monkey).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Primates; Catarrhini; Cercopithecidae;
OC   Cercopithecinae; Macaca.
OX   NCBI_TaxID=9541;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   TISSUE=CEREBELLUM;
RX   MEDLINE=91273117; PubMed=1905108;
RA   Podlisny M.B., Tolan D.R., Selkoe D.J.;
RT   "Homology of the amyloid beta protein precursor in monkey and human
RT   supports a primate model for beta amyloidosis in Alzheimer's
RT   disease.";
RL   Am. J. Pathol. 138:1423-1435(1991).
DR   EMBL; M58727; AAA36829.1; -.
DR   InterPro; IPR001868; A4_APP.
DR   InterPro; IPR001255; Beta-APP.
DR   Pfam; PF02177; A4_EXTRA; 1.
DR   Pfam; PF03494; Beta-APP; 1.
DR   PROSITE; PS00319; A4_EXTRA; UNKNOWN_1.
DR   PROSITE; PS00320; A4_INTRA; UNKNOWN_1.
FT   SIGNAL        1     17       POTENTIAL.
FT   CHAIN       597    636       POTENTIAL.
SQ   SEQUENCE   695 AA;  78663 MW;  4F6EA0139F969D56 CRC64;

  Query Match             100.0%;  Score 217;  DB 6;  Length 695;
  Best Local Similarity   100.0%;  Pred. No. 2.4e-21;
  Matches   42;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 42
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Db    597 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 638


RESULT 8
Q60496
ID   Q60496      PRELIMINARY;      PRT;   695 AA.
AC   Q60496;
DT   01-NOV-1996 (TrEMBLrel. 01, Created)
DT   01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
DT   01-JUN-2002 (TrEMBLrel. 21, Last annotation update)
DE   Putative amyloid precursor protein.
OS   Cavia sp.
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Rodentia; Hystricognathi; Caviidae; Cavia.
OX   NCBI_TaxID=10143;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   TISSUE=BRAIN;
RX   MEDLINE=97236426; PubMed=9116031;
RA   Beck M., Mueller D., Bigl V.;
RT   "Amyloid precursor protein in Guinea pigs - complete cDNA sequence and
RT   alternative splicing.";
RL   Biochim. Biophys. Acta 1351:17-21(1997).
DR   EMBL; X97631; CAA66230.1; -.
DR   HSSP; P05067; 1BA4.
DR   InterPro; IPR001868; A4_APP.
DR   InterPro; IPR001255; Beta-APP.
DR   Pfam; PF02177; A4_EXTRA; 1.
DR   Pfam; PF03494; Beta-APP; 1.
DR   PRINTS; PR00203; AMYLOIDA4.
DR   SMART; SM00006; A4_EXTRA; 1.
DR   PROSITE; PS00319; A4_EXTRA; 1.
DR   PROSITE; PS00320; A4_INTRA; 1.
SQ   SEQUENCE   695 AA;  78701 MW;  5196A0C4017F16AB CRC64;

  Query Match             100.0%;  Score 217;  DB 11;  Length 695;
  Best Local Similarity   100.0%;  Pred. No. 2.4e-21;
  Matches   42;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 42
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Db    597 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 638


RESULT 9
Q9DGJ8
ID   Q9DGJ8      PRELIMINARY;      PRT;   695 AA.
AC   Q9DGJ8;
DT   01-MAR-2001 (TrEMBLrel. 16, Created)
DT   01-MAR-2001 (TrEMBLrel. 16, Last sequence update)
DT   01-JUN-2002 (TrEMBLrel. 21, Last annotation update)
DE   Beta-amyloid precursor protein 695 isoform.
OS   Gallus gallus (Chicken).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Archosauria; Aves; Neognathae; Galliformes; Phasianidae; Phasianinae;
OC   Gallus.
OX   NCBI_TaxID=9031;
RN   [1]
RP   SEQUENCE FROM N.A.
RA   Sarasa M., Rodolosse A., Sorribas V.;
RT   "Cloning of full-length chicken beta-amyloid precursor protein
RT   isoforms.";
RL   Submitted (JUL-2000) to the EMBL/GenBank/DDBJ databases.
DR   EMBL; AF289218; AAG00593.1; -.
DR   HSSP; P05067; 1BA4.
DR   InterPro; IPR001868; A4_APP.
DR   InterPro; IPR001255; Beta-APP.
DR   Pfam; PF02177; A4_EXTRA; 1.
DR   Pfam; PF03494; Beta-APP; 1.
DR   PRINTS; PR00203; AMYLOIDA4.
DR   SMART; SM00006; A4_EXTRA; 1.
DR   PROSITE; PS00319; A4_EXTRA; 1.
DR   PROSITE; PS00320; A4_INTRA; 1.
SQ   SEQUENCE   695 AA;  78565 MW;  F201ED02AEC86D95 CRC64;

  Query Match             100.0%;  Score 217;  DB 13;  Length 695;
  Best Local Similarity   100.0%;  Pred. No. 2.4e-21;
  Matches   42;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 42
          |||||||||||||||||||||||||||||||||||||||||||
Db    597 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 638


RESULT 10
Q9DGJ7
ID   Q9DGJ7      PRELIMINARY;      PRT;   751 AA.
AC   Q9DGJ7;
DT   01-MAR-2001 (TrEMBLrel. 16, Created)
DT   01-MAR-2001 (TrEMBLrel. 16, Last sequence update)
DT   01-JUN-2002 (TrEMBLrel. 21, Last annotation update)
DE   Beta-amyloid precursor protein 751 isoform.
OS   Gallus gallus (Chicken).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Archosauria; Aves; Neognathae; Galliformes; Phasianidae; Phasianinae;
OC   Gallus.
OX   NCBI_TaxID=9031;
RN   [1]
RP   SEQUENCE FROM N.A.
RA   Sarasa M., Rodolosse A., Sorribas V.;
RT   "Cloning of full-length chicken beta-amyloid precursor protein
RT   isoforms.";
RL   Submitted (JUL-2000) to the EMBL/GenBank/DDBJ databases.
DR   EMBL; AF289219; AAG00594.1; -.
DR   HSSP; P05067; 1BA4.
DR   InterPro; IPR001868; A4_APP.
DR   InterPro; IPR001255; Beta-APP.
DR   InterPro; IPR002223; Kunitz_BPTI.
DR   Pfam; PF02177; A4_EXTRA; 1.
DR   Pfam; PF03494; Beta-APP; 1.
DR   Pfam; PF00014; Kunitz_BPTI; 1.
DR   PRINTS; PR00203; AMYLOIDA4.
DR   PRINTS; PR00759; BASICPTASE.
DR   ProDom; PD000222; Kunitz_BPTI; 1.
DR   SMART; SM00006; A4_EXTRA; 1.
DR   SMART; SM00131; KU; 1.
DR   PROSITE; PS00319; A4_EXTRA; 1.
DR   PROSITE; PS00320; A4_INTRA; 1.
DR   PROSITE; PS00280; BPTI_KUNITZ_1; 1.
DR   PROSITE; PS50279; BPTI_KUNITZ_2; 1.
KW   Serine protease inhibitor.
SQ   SEQUENCE   751 AA;  84705 MW;  E78E9413A8033D84 CRC64;

  Query Match             100.0%;  Score 217;  DB 13;  Length 751;
  Best Local Similarity   100.0%;  Pred. No. 2.7e-21;
  Matches   42;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 42
          |||||||||||||||||||||||||||||||||||||||||||
Db    653 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 694


RESULT 11
Q9TUI0
ID   Q9TUI0      PRELIMINARY;      PRT;   770 AA.
AC   Q9TUI0;
DT   01-MAY-2000 (TrEMBLrel. 13, Created)
DT   01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
DT   01-JUN-2002 (TrEMBLrel. 21, Last annotation update)
DE   Amyloid precursor protein.
OS   Sus scrofa (Pig).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Cetartiodactyla; Suina; Suidae; Sus.
OX   NCBI_TaxID=9823;
RN   [1]
RP   SEQUENCE FROM N.A.
RA   Kimura A., Takahashi T.;
RT   "Amyloid Precursor Protein 770.";
RL   Submitted (SEP-1999) to the EMBL/GenBank/DDBJ databases.
DR   EMBL; AB032550; BAA84580.1; -.
DR   HSSP; P05067; 1AAP.
DR   InterPro; IPR001868; A4_APP.
DR   InterPro; IPR001255; Beta-APP.
DR   InterPro; IPR002223; Kunitz_BPTI.
DR   Pfam; PF02177; A4_EXTRA; 1.
DR   Pfam; PF03494; Beta-APP; 1.
DR   Pfam; PF00014; Kunitz_BPTI; 1.
DR   PRINTS; PR00203; AMYLOIDA4.
DR   PRINTS; PR00759; BASICPTASE.
DR   ProDom; PD000222; Kunitz_BPTI; 1.
DR   SMART; SM00006; A4_EXTRA; 1.
DR   SMART; SM00131; KU; 1.
DR   PROSITE; PS00319; A4_EXTRA; 1.
DR   PROSITE; PS00320; A4_INTRA; 1.
DR   PROSITE; PS00280; BPTI_KUNITZ_1; 1.
DR   PROSITE; PS50279; BPTI_KUNITZ_2; 1.
KW   Serine protease inhibitor.
SQ   SEQUENCE   770 AA;  86961 MW;  5F7A1DCB2BCC583E CRC64;

  Query Match             100.0%;  Score 217;  DB 6;  Length 770;
  Best Local Similarity   100.0%;  Pred. No. 2.7e-21;
  Matches   42;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 42
          |||||||||||||||||||||||||||||||||||||||||||
Db    672 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 713


RESULT 12
Q13778
ID   Q13778      PRELIMINARY;      PRT;    97 AA.
AC   Q13778;
DT   01-NOV-1996 (TrEMBLrel. 01, Created)
DT   01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
DT   01-JUN-2002 (TrEMBLrel. 21, Last annotation update)
DE   Amyloid protein (AD-AP) (Fragment).
OS   Homo sapiens (Human).
```

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OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX   NCBI_TaxID=9606;
RN   [1]
RP   SEQUENCE FROM N.A.
RX   MEDLINE=87120328; PubMed=3810169;
RA   Goldgaber D., Lerman M.I., McBride O.W., Saffiotti U., Gajdusek D.C.;
RT   "Characterization and chromosomal localization of a cDNA encoding
RT   brain amyloid of Alzheimer's disease.";
RL   Science 235:877-880(1987).
DR   EMBL; M15533; AAA35540.1; -.
DR   HSSP; P05067; 1BA4.
DR   InterPro; IPR001868; A4_APP.
DR   InterPro; IPR001255; Beta-APP.
DR   Pfam; PF03494; Beta-APP; 1.
DR   PRINTS; PR00203; AMYLOIDA4.
FT   NON_TER       1      1
SQ   SEQUENCE   97 AA;  10884 MW;  E528CDB448DE474E CRC64;

  Query Match             95.4%;  Score 207;  DB 4;  Length 97;
  Best Local Similarity   100.0%;  Pred. No. 5.5e-21;
  Matches   40;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       3 EFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 42
           |||||||||||||||||||||||||||||||||||||||||
Db       1 EFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 40


RESULT 13
O35463
ID   O35463      PRELIMINARY;      PRT;    79 AA.
AC   O35463;
DT   01-JAN-1998 (TrEMBLrel. 05, Created)
DT   01-JAN-1998 (TrEMBLrel. 05, Last sequence update)
DT   01-JUN-2002 (TrEMBLrel. 21, Last annotation update)
DE   Alzheimer's amyloid beta protein (Fragment).
GN   BETA APP.
OS   Cricetulus griseus (Chinese hamster).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Cricetinae;
OC   Cricetulus.
OX   NCBI_TaxID=10029;
RN   [1]
RP   SEQUENCE FROM N.A.
RA   Sambamurti K., Pinnix I., Gandhi S.;
RL   Submitted (OCT-1997) to the EMBL/GenBank/DDBJ databases.
DR   EMBL; AF030413; AAB86608.1; -.
DR   HSSP; P05067; 1BA4.
DR   InterPro; IPR001255; Beta-APP.
DR   Pfam; PF03494; Beta-APP; 1.
FT   NON_TER       1      1
FT   NON_TER      79     79
SQ   SEQUENCE   79 AA;  8538 MW;  37F2C6C3BFF3F597 CRC64;

  Query Match             91.2%;  Score 198;  DB 11;  Length 79;
  Best Local Similarity   92.9%;  Pred. No. 7.6e-20;
  Matches   39;  Conservative    1;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 42
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Db      21 DAEFGHDSGFEVRHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 62


RESULT 14
Q99K32
ID   Q99K32      PRELIMINARY;      PRT;   607 AA.
AC   Q99K32;
DT   01-JUN-2001 (TrEMBLrel. 17, Created)
DT   01-JUN-2001 (TrEMBLrel. 17, Last sequence update)
DT   01-JUN-2002 (TrEMBLrel. 21, Last annotation update)
DE   Hypothetical 68.4 kDa protein (Fragment).
GN   APP.
OS   Mus musculus (Mouse).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
OX   NCBI_TaxID=10090;
RN   [1]
RP   SEQUENCE FROM N.A.
RA   Strausberg R.;
RL   Submitted (MAR-2001) to the EMBL/GenBank/DDBJ databases.
DR   EMBL; BC005490; AAH05490.1; -.
DR   HSSP; P05067; 1AAP.
DR   MGD; MGI:88059; App.
DR   InterPro; IPR001868; A4_APP.
DR   InterPro; IPR001255; Beta-APP.
DR   InterPro; IPR002223; Kunitz_BPTI.
DR   Pfam; PF02177; A4_EXTRA; 1.
DR   Pfam; PF03494; Beta-APP; 1.
DR   Pfam; PF00014; Kunitz_BPTI; 1.
DR   PRINTS; PR00203; AMYLOIDA4.
DR   PRINTS; PR00759; BASICPTASE.
DR   ProDom; PD000222; Kunitz_BPTI; 1.
DR   SMART; SM00131; KU; 1.
DR   PROSITE; PS00319; A4_EXTRA; 1.
DR   PROSITE; PS00320; A4_INTRA; 1.
DR   PROSITE; PS00280; BPTI_KUNITZ_1; 1.
DR   PROSITE; PS50279; BPTI_KUNITZ_2; 1.
KW   Hypothetical protein; Serine protease inhibitor.
FT   NON_TER       1      1
SQ   SEQUENCE   607 AA;  68391 MW;  BF802214CBA7D172 CRC64;

  Query Match             91.2%;  Score 198;  DB 11;  Length 607;
  Best Local Similarity   92.9%;  Pred. No. 8.8e-19;
  Matches   39;  Conservative    1;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 42
           |||| ||||:|| |||||||||||||||||||||||||||||
Db     509 DAEFGHDSGFEVRHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 550


RESULT 15
Q98SG0
ID   Q98SG0      PRELIMINARY;      PRT;   693 AA.
AC   Q98SG0;
DT   01-JUN-2001 (TrEMBLrel. 17, Created)
DT   01-JUN-2001 (TrEMBLrel. 17, Last sequence update)
DT   01-JUN-2002 (TrEMBLrel. 21, Last annotation update)
DE   Beta-amyloid precursor protein A.
GN   APP.
OS   Xenopus laevis (African clawed frog).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Amphibia; Batrachia; Anura; Mesobatrachia; Pipoidea; Pipidae;
OC   Xenopodinae; Xenopus.
OX   NCBI_TaxID=8355;
RN   [1]
RP   SEQUENCE FROM N.A.
RA   Van den Hurk W.H.;
RL   Thesis (2001), Department of Biological Sciences,
RL   University of Nijmegen, Nijmegen, Netherlands.
DR   EMBL; AJ298150; CAC37193.1; -.
DR   HSSP; P05067; 1HZ3.
DR   InterPro; IPR001868; A4_APP.
DR   InterPro; IPR001255; Beta-APP.
DR   Pfam; PF02177; A4_EXTRA; 1.
DR   Pfam; PF03494; Beta-APP; 1.
DR   PRINTS; PR00203; AMYLOIDA4.
DR   SMART; SM00006; A4_EXTRA; 1.
DR   PROSITE; PS00319; A4_EXTRA; 1.
DR   PROSITE; PS00320; A4_INTRA; 1.
KW   Signal.
FT   SIGNAL        1     18       POTENTIAL.
SQ   SEQUENCE   693 AA;  78568 MW;  CAF1DF655C1AB653 CRC64;

  Query Match             91.2%;  Score 198;  DB 13;  Length 693;
  Best Local Similarity   88.1%;  Pred. No. 1e-18;
  Matches   37;  Conservative    4;  Mismatches    1;  Indels    0;  Gaps    0;
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Qy       1 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 42
           |:|:|||: ||||||||||||:||||||||||||||||||||
Db     595 DSEYRHDTAYEVHHQKLVFFAEEVGSNKGAIIGLMVGGVVIA 636

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GenCore version 5.1.4_p5_4578
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OM protein - protein search, using sw model

Run on: April 21, 2003, 11:57:04 ; Search time 36 Seconds
(without alignments)
155.459 Million cell updates/sec

Title: US-09-580-018-42
Perfect score: 217
Sequence: 1 DAEFRHDSGYEVHHQKLVFF.....DVGSNKGAIIGLMVGGVVIA 42

Scoring table: BLOSUM62
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Searched: 908470 seqs, 133250620 residues

Total number of hits satisfying chosen parameters: 908470

Minimum DB seq length: 0
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Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	217	100.0	42	13	AAR20330	Sequence of A99 (b
2	217	100.0	42	15	AAR60366	Beta-amyloid (1-42
3	217	100.0	42	17	AAR95248	Beta/A4-amyloid pe
4	217	100.0	42	17	AAR94591	Alzheimer amyloid
5	217	100.0	42	18	AAW12828	Beta A4 peptide.
6	217	100.0	42	19	AAW64507	Neurotoxic beta-am
7	217	100.0	42	19	AAW47230	Beta-amyloid pepti
8	217	100.0	42	19	AAW42989	Full length beta-a
9	217	100.0	42	20	AAY49691	Human beta amyloid
10	217	100.0	42	20	AAY33407	Human amyloidogeni
11	217	100.0	42	20	AAY25137	Human amyloid beta
12	217	100.0	42	20	AAY08607	Human beta-amyloid
13	217	100.0	42	20	AAW29093	A-beta-binding pep
14	217	100.0	42	20	AAW99585	Mutant aggregating
15	217	100.0	42	20	AAW92726	Human tachykinin a
16	217	100.0	42	20	AAW81474	Synthetic amyloid
17	217	100.0	42	21	AAY96956	Beta-amyloid 1-42
18	217	100.0	42	22	AAB82622	Amyloid-beta pepti
19	217	100.0	42	22	AAE05484	Human peptide anti
20	217	100.0	42	22	AAB86134	Human Alzheimer-be
21	217	100.0	42	22	AAB91779	Amyloid beta-prote
22	217	100.0	42	22	AAB91812	Amyloid beta-prote
23	217	100.0	42	22	AAB49098	Human amyloid beta
24	217	100.0	42	22	AAB48497	Human amyloid prot
25	217	100.0	42	22	AAB48830	Human amyloid-beta
26	217	100.0	42	22	AAB49395	Human amyloid pept
27	217	100.0	42	22	AAB35589	Beta/A4-amyloid pe
28	217	100.0	42	23	AAU98727	Human amyloid beta
29	217	100.0	42	23	ABB83306	Amyloid-beta (Abet
30	217	100.0	42	23	AAU96896	Human Amyloid beta
31	217	100.0	42	23	ABB81321	Amyloid precursor
32	217	100.0	42	23	AAE21438	Human beta-amyloid
33	217	100.0	42	23	ABB76029	Beta amyloid pepti
34	217	100.0	42	23	AAU93988	Human beta-amyloid
35	217	100.0	42	23	AAU76483	Amino acids 1-42 o
36	217	100.0	42	23	AAU80961	Human amyloid beta
37	217	100.0	42	23	AAG68314	Human beta amyloid
38	217	100.0	42	23	AAM51864	Neuronal death inh
39	217	100.0	42	23	AAU75433	Amyloid peptide pr
40	217	100.0	43	10	AAP96371	Region of pre-APC
41	217	100.0	43	15	AAR54759	Beta amyloid pepti
42	217	100.0	43	15	AAR60367	Beta-amyloid (1-43
43	217	100.0	43	15	AAR61328	Amyloid beta-prote
44	217	100.0	43	16	AAR64165	Beta amyloid prote
45	217	100.0	43	17	AAR95673	A-beta protein (43

ALIGNMENTS

RESULT 1
AAR20330
ID AAR20330 standard; peptide; 42 AA.
XX
AC AAR20330;
XX
DT 14-APR-1992 (first entry)
XX
DE Sequence of A99 (beta-amyloid core domain).
XX
KW Transgenic mice; Alzheimer's disease; diagnosis;
KW beta-amaloid precursor; plaque core protein.
XX
OS Homo sapiens.
XX
PN WO9119810-A.
XX
PD 26-DEC-1991.
XX
PF 17-JUN-1991; 91WO-US04447.
XX
PR 15-JUN-1990; 90US-0538857.
XX
PA (CALB-) CALIF BIOTECHN INC.
XX
PI Cordell B;
XX
DR WPI; 1992-024426/03.
XX
PT Transgenic mice as models for studying Alzheimer's disease
PT proteins - contg. cells with promoter and beta-amyloid precursor
PT protein deoxyribonucleic acid, useful for testing
PT anti-alzheimer's drugs

```
XX
PS   Disclosure; Fig 3; 98pp; English.
XX
CC   The inventors specifically claim transgenic mice contg. DNA encoding
CC   A42 (beta-amyloid precursor protein) (AAR20330), A99 (beta-amyloid
CC   carboxy tail) (AAR20329), A695 (beta-amyloid precursor protein), A751
CC   (precursor plus inhibitor) or A4i (protease inhibitor) (AAR20328).
CC   Human fibroblast cDNA clone lambdaAPCP168i4 was deposited at ATCC on
CC   July 1, 1987 and has accession No. 40347.  The promoter is pref. the
CC   NSE promoter with the A751 or the A695 sequence.
XX
SQ   Sequence   42 AA;

  Query Match             100.0%;  Score 217;  DB 13;  Length 42;
  Best Local Similarity   100.0%;  Pred. No. 8.2e-25;
  Matches   42;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 42
          ||||||||||||||||||||||||||||||||||||||||||
Db      1 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 42


RESULT 2
AAR60366
ID   AAR60366 standard; peptide; 42 AA.
XX
AC   AAR60366;
XX
DT   15-MAR-1995  (first entry)
XX
DE   Beta-amyloid (1-42).
XX
KW   Amyloid precursor protein; APP; Alzheimer's disease; beta-amyloid;
KW   anti-beta-amyloid antibody; diagnosis.
XX
OS   Homo sapiens.
XX
PN   WO9417197-A.
XX
PD   04-AUG-1994.
XX
PF   24-JAN-1994;   94WO-JP00089.
XX
PR   25-JAN-1993;   93JP-0010132.
PR   05-FEB-1993;   93JP-0019035.
PR   16-NOV-1993;   93JP-0286985.
PR   28-DEC-1993;   93JP-0334773.
XX
PA   (TAKE ) TAKEDA CHEM IND LTD.
XX
PI   Kitada C,  Odaka A,  Suzuki N;
XX
DR   WPI; 1994-264110/32.
XX
PT   Antibodies recognising specific parts of beta-amyloid - can be
PT   used for diagnosis of diseases implicating beta-amyloid, such as
PT   Alzheimer's disease
XX
PS   Disclosure; Page 83; 116pp; Japanese.
XX
CC   Antibodies which recognise specific subfragments of the beta-amyloid
CC   protein are claimed. Specifically, the antibodies (which are pref.
CC   monoclonal) recognise residues 1-16 and/or 1-28 from the N-terminal
CC   portion of beta-amyloid or they recognise residues 25-35 or 35-43
CC   from the C-terminal portion. The antibodies are useful for assaying
CC   beta-amyloid and its derivatives for diagnosis of Alzheimer's
CC   disease.
XX
SQ   Sequence   42 AA;

  Query Match             100.0%;  Score 217;  DB 15;  Length 42;
  Best Local Similarity   100.0%;  Pred. No. 8.2e-25;
  Matches   42;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 42
          ||||||||||||||||||||||||||||||||||||||||||
Db      1 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 42


RESULT 3
AAR95248
ID   AAR95248 standard; peptide; 42 AA.
XX
AC   AAR95248;
XX
DT   20-JAN-1997  (first entry)
XX
DE   Beta/A4-amyloid peptide.
XX
KW   Beta/A4-amyloid peptide; tissue plasminogen activator;
KW   Alzheimer's disease; stimulation; investigation; pathogenesis;
KW   hereditary cerebral haemorrhage with amyloidosis-Dutch type;
KW   control; cerebral amyloid angiopathy; cerebral; haemorrhage;
KW   hemorrhage.
XX
OS   Homo sapiens.
XX
PN   WO9615799-A1.
XX
PD   30-MAY-1996.
XX
PF   22-NOV-1995;   95WO-US15007.
XX
PR   22-NOV-1994;   94US-0347144.
XX
PA   (RUTF ) UNIV RUTGERS STATE NEW JERSEY.
XX
PI   Anderson S;
XX
DR   WPI; 1996-268332/27.
XX
PT   Use of agents which bind beta-amyloid peptide - for diagnosis,
PT   prevention and treatment of vascular damage caused by amyloid
PT   deposits, partic. in haemorrhaging and Alzheimer's disease
XX
PS   Example 1; Fig 1; 52pp; English.
XX
CC   To investigate the effects of beta-amyloid peptide (BAP) on
CC   tissue plasminogen activator (t-PA) 3 synthetic peptides were used.
CC   One peptide contained 42 amino acids and corresp. to the full
CC   length BAP (AAR95248). The other 2 peptides (AAR95249 and 50) contained
CC   the 28 N-terminal residues of the BAP found in Alzheimer's disease
CC   and hereditary cerebral haemorrhage with amyloidosis-Dutch type
CC   (HCHWA-D), respectively. In an assay to determine the effect of
CC   the peptides on t-PA activation, each peptide (AAR95248, 49 and 50)
CC   gave 1st order rate constant of activation (k(app)) values of
CC   13.4, 13.9 and 14.5, respectively, compared to 1.7 and 7.8 for nill
CC   and fibrinogen controls. The results demonstrate that the BAP are
CC   able to stimulate t-PA activity in vitro, which is significant in
CC   that it provides a means for investigating and controlling the
CC   pathogenesis of Alzheimer's disease, HCHWA-D and cerebral amyloid
CC   angiopathy related cerebral haemorrhage.
XX
SQ   Sequence   42 AA;

  Query Match             100.0%;  Score 217;  DB 17;  Length 42;
  Best Local Similarity   100.0%;  Pred. No. 8.2e-25;
  Matches   42;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 42
          ||||||||||||||||||||||||||||||||||||||||||
Db      1 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 42


RESULT 4
AAR94591
```

ID AAR94591 standard; peptide; 42 AA.
XX
AC AAR94591;
XX
DT 21-AUG-1996 (first entry)
XX
DE Alzheimer amyloid beta-protein active site sequence.
XX
KW Beta-amyloid; Alzheimer's disease; cholinesterase; lipase; ebelactone-A;
KW serine protease; para-amidinophenylmethanesulphonyl fluoride; inhibition;
KW complex formation; alpha(1)-antichymotrypsin; Down's diseases; ageing.
XX
OS Synthetic.
XX
PN US5506097-A.
XX
PD 09-APR-1996.
XX
PF 24-AUG-1990; 90US-0572671.
XX
PR 10-JAN-1994; 94US-0179574.
PR 24-AUG-1990; 90US-0572671.
PR 13-JAN-1992; 92US-0819361.
PR 13-JAN-1993; 93WO-US00325.
XX
PA (HARD) HARVARD COLLEGE.
XX
PI Kayyali U, Potter H;
XX
DR WPI; 1996-200270/20.
XX
PT Inhibiting enzymatic activity of Alzheimer amyloid beta-protein -
PT using p-amidino:phenyl:methanesulphonyl fluoride or ebelactone A,
PT for treatment, study and diagnosis of Alzheimer's disease, etc.
XX
PS Disclosure; Fig 1; 17pp; English.
XX
CC This is the sequence of a fragment of the beta-amyloid protein
CC associated with Alzheimer's disease. The protein contains esterase
CC (cholinesterase and lipase) activities based on active site similarities
CC with serine proteases (see AAR94592-96). The esterase activity of the
CC beta-amyloid protein is inhibited by the cpds. of the invention i.e.
CC ebelactone A or para-amidinophenylmethanesulphonyl fluoride. Inhibition
CC of these activities prevent complex formation between the beta-amyloid
CC protein and alpha(1)-antichymotrypsin, thus can be used to treat, study
CC or diagnose Alzheimer's or Down's diseases or normal ageing.
XX
SQ Sequence 42 AA;

Query Match 100.0%; Score 217; DB 17; Length 42;
Best Local Similarity 100.0%; Pred. No. 8.2e-25;
Matches 42; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 42
||||||||||||||||||||||||||||||||||||||||||
Db 1 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 42

RESULT 5
AAW12828
ID AAW12828 standard; peptide; 42 AA.
XX
AC AAW12828;
XX
DT 08-DEC-1997 (first entry)
XX
DE Beta A4 peptide.
XX
KW Beta A4 peptide; alzheimer's disease; peptide aggregation; brain;
KW therapy; inhibitor.
XX
OS Homo sapiens.
XX
PN WO9707403-A1.
XX
PD 27-FEB-1997.
XX
PF 23-JUL-1996; 96WO-US12034.
XX
PR 16-AUG-1995; 95US-0515606.
XX
PA (HMRI) HOECHST MARION ROUSSEL INC.
XX
PI Goyal S, Paul JW, Riedel NG, Sahasrabudhe SR;
XX
DR WPI; 1997-165447/15.
XX
PT Determn. of the degree of betaA4 peptide aggregation using binding
PT agent - used to screen cpds. for possible use in Alzheimer's disease
PT treatment
XX
PS Disclosure; Page 10; 18pp; English.
XX
CC This sequence represents the beta A4 peptide. The degree of aggregation
CC of this peptide is determined using the method of the invention. The beta
CC A4 peptide is present in the brain of Alzheimer's disease patients, but
CC not in the brain of non-Alzheimer's disease individuals. The peptide
CC clumps or aggregates in the brain of Alzheimer's disease patients, where
CC it may be responsible for the destruction of normal brain cells. Once the
CC clumps or aggregates form, the formulation is almost irreversible. The
CC method of the invention comprises reacting this sequence with a binding
CC reagent capable of binding to it only in its non-aggregated state, to
CC form an amount of a beta A4 peptide-bound reagent and an amount of
CC protein free reagent. The amount of the beta A4 peptide, binding reagent
CC complex is then measured. Compounds which inhibit aggregation of beta A4
CC peptide are potentially useful for treatment of Alzheimer's disease.
XX
SQ Sequence 42 AA;

Query Match 100.0%; Score 217; DB 18; Length 42;
Best Local Similarity 100.0%; Pred. No. 8.2e-25;
Matches 42; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 42
||||||||||||||||||||||||||||||||||||||||||
Db 1 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 42

RESULT 6
AAW64507
ID AAW64507 standard; peptide; 42 AA.
XX
AC AAW64507;
XX
DT 20-OCT-1998 (first entry)
XX
DE Neurotoxic beta-amyloid peptide decoy peptide #20.
XX
KW Beta-amyloid peptide; beta-AP; neuropeptide; neurotoxin; calcium influx;
KW aggregate; Alzheimers disease; decoy; treatment.
XX
OS Synthetic.
XX
PN WO9830229-A1.
XX
PD 16-JUL-1998.
XX
PF 09-JAN-1998; 98WO-US00653.
XX
PR 29-OCT-1997; 97US-0960188.
PR 10-JAN-1997; 97US-0035847.
XX
PA (MASI) MASSACHUSETTS INST TECHNOLOGY.
XX
PI Blanchard BJ, Ingram VM;
XX

DR WPI; 1998-398795/34.
XX
PT Inhibition of aggregation of, e.g. beta-amyloid peptide - by
PT administering decoy peptide or other calcium-influx inhibitor,
PT useful for, e.g. treating Alzheimer's disease
XX
PS Example 8; Page 46; 68pp; English.
XX
CC AAW64488-W64517 are decoy peptides that bind to a neurotoxic
CC beta-amyloid peptide (beta-AP) and reduces the ability of beta-AP's to
CC form aggregates that increase calcium influx into neuronal cells. Such
CC peptides can be used in the treatment of diseases associated with
CC neurotoxic aggregates of beta-AP specifically Alzheimer's disease. The
CC peptides are administered at 0.001-1000 (especially 0.2-20) mg/kg, by
CC injection and orally, or from slow-release implants.
XX
SQ Sequence 42 AA;

Query Match 100.0%; Score 217; DB 19; Length 42;
Best Local Similarity 100.0%; Pred. No. 8.2e-25;
Matches 42; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 42
||||||||||||||||||||||||||||||||||||||||||
Db 1 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 42

RESULT 7
AAW47230
ID AAW47230 standard; peptide; 42 AA.
XX
AC AAW47230;
XX
DT 22-MAY-1998 (first entry)
XX
DE Beta-amyloid peptide residues 1-42.
XX
KW Screening assay; beta-amyloid peptide; treatment;
KW amyloidosis disease; Alzheimer's disease.
XX
OS Homo sapiens.
XX
PN US5721106-A.
XX
PD 24-FEB-1998.
XX
PF 12-SEP-1994; 94US-0304585.
XX
PR 12-SEP-1994; 94US-0304585.
PR 13-AUG-1991; 91US-0744767.
XX
PA (HARD) HARVARD COLLEGE.
PA (MINU) UNIV MINNESOTA.
XX
PI Maggio JE, Mantyh PW;
XX
DR WPI; 1998-168404/15.
XX
PT New in vitro screening assay for Alzheimer's disease drugs -
PT comprises assessing binding of labelled beta-amyloid peptide to silk
PT sample
XX
PS Claim 8; Columns 29-30; 36pp; English.
XX
CC The present sequence was used in the development of a novel in
CC vitro screening assay for agents capable of affecting the
CC deposition of beta-amyloid peptide (BAP) on tissue. The method
CC comprises contacting a silk sample with labelled BAP, optionally
CC in the presence of a test agent, detecting the amount of label
CC bound to the silk and assessing the effect of the agent on the
CC deposition of BAP. Agents that inhibit binding of BAP to silk are
CC potentially useful for treating amyloidosis diseases, especially
CC Alzheimer's disease.
XX
SQ Sequence 42 AA;

Query Match 100.0%; Score 217; DB 19; Length 42;
Best Local Similarity 100.0%; Pred. No. 8.2e-25;
Matches 42; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 42
||||||||||||||||||||||||||||||||||||||||||
Db 1 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 42

RESULT 8
AAW42989
ID AAW42989 standard; peptide; 42 AA.
XX
AC AAW42989;
XX
DT 01-MAY-1998 (first entry)
XX
DE Full length beta-amyloid peptide (BAP).
XX
KW Beta-amyloid peptide; BAP; extracellular BAP plaque;
KW cerebrovascular deposit; Alzheimers disease; Downs syndrome;
KW amyloid precursor protein; APP; secretase; BAP aggregation;
KW abnormal proteolytic cleavage.
XX
OS Homo sapiens.
XX
PN US5703209-A.
XX
PD 30-DEC-1997.
XX
PF 05-JUN-1995; 95US-0464248.
XX
PR 20-SEP-1993; 93US-0123659.
PR 01-MAY-1992; 92US-0877675.
XX
PA (AMCY) AMERICAN CYANAMID CO.
XX
PI Jacobsen JS, Vitek MP;
XX
DR WPI; 1998-076482/07.
XX
PT Amyloid precursor protein fusion polypeptides - comprising APP
PT fragment and marker, useful for research and drug screening
XX
PS Disclosure; Column 7; 84pp; English.
XX
CC The present sequence represents a beta-amyloid peptide (BAP). Abnormal
CC accumulation of extracellular BAP in plaques and cerebrovascular deposits
CC is characteristic in brains of individuals suffering from Alzheimers
CC disease and Downs syndrome. BAP is a poorly soluble, self-aggregating
CC protein which is derived from a larger amyloid precursor protein (APP).
CC APP is expressed as an integral membrane protein, and is cleaved by
CC secretase, between BAP 16Lys and 17Leu. Cleavage at this site precludes
CC amyloidogenesis and results in the release of the amino-terminal APP
CC fragment. Three major isoforms of APP exist: APP-695, APP-751 and
CC APP-770. These isoforms are derived by alternative splicing. APP-ARP 751
CC is a deletion construct of APP-751, which has a deletion of 276 amino
CC acids to within 15 amino acids of the BAP domain. APP can be used as a
CC substrate for studying abnormal proteolytic cleavage which results in the
CC release of BAP, and also to screen for drugs that will inhibit such
CC cleavage.
XX
SQ Sequence 42 AA;

Query Match 100.0%; Score 217; DB 19; Length 42;
Best Local Similarity 100.0%; Pred. No. 8.2e-25;
Matches 42; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 42
||||||||||||||||||||||||||||||||||||||||||

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Db      1 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 42


RESULT 9
AAY49691
ID   AAY49691 standard; peptide; 42 AA.
XX
AC   AAY49691;
XX
DT   13-JAN-2000  (first entry)
XX
DE   Human beta amyloid precursor protein peptide.
XX
KW   Human; beta amyloid precursor protein; APP; beta secretase inhibition;
KW   alpha secretase; neurological disorder; Alzheimer's disease;
KW   Downs syndrome; mutation.
XX
OS   Homo sapiens.
XX
PN   WO9951752-A1.
XX
PD   14-OCT-1999.
XX
PF   31-MAR-1999;   99WO-JP01701.
XX
PR   31-MAR-1998;   98JP-0101821.
XX
PA   (CHUS ) CHUGAI SEIYAKU KK.
XX
PI   Ozawa K,  Ikeda S,  Tabira T;
XX
DR   WPI; 1999-620208/53.
XX
PT   A cell line which produces beta amyloid precursor protein, used in the
PT   investigation of neurological disorders such as Alzheimer's disease -
XX
PS   Disclosure; Page 41; 70pp; Japanese.
XX
CC   The present invention describes a cell line which produces beta amyloid
CC   precursor protein (APP) and expresses alpha secretase activity but
CC   expresses beta secretase activity only under an external stimulus.
CC   Also described is a cloning method for DNA encoding beta secretase,
CC   comprising: (1) inserting a DNA library into the cell line, expressing
CC   the inserted DNA, and selecting cells expressing beta secretase then
CC   isolating the beta secretase DNA from them; or (2) isolating nucleic
CC   acid from the cell line with or without external stimulation and
CC   performing subtractive cloning to identify DNA expressed only under
CC   stimulation. Products from the present invention may be used in the
CC   investigation of neurological disorders such as Alzheimer's disease
CC   and Downs syndrome and in particular the association of mutations of
CC   the beta APP with them. The present sequence represents a human
CC   beta APP peptide.
XX
SQ   Sequence   42 AA;

  Query Match             100.0%;  Score 217;  DB 20;  Length 42;
  Best Local Similarity   100.0%;  Pred. No. 8.2e-25;
  Matches   42;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 42
          |||||||||||||||||||||||||||||||||||||||||||
Db      1 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 42


RESULT 10
AAY33407
ID   AAY33407 standard; peptide; 42 AA.
XX
AC   AAY33407;
XX
DT   03-DEC-1999  (first entry)
XX
DE   Human amyloidogenic A-beta peptide 1.
XX
KW   Amyloidogenic; beta-amyloid; A-beta peptide; human; inhibitor;
KW   fibrillogenesis; amyloid plaque; amyloidosis; Alzheimer's disease;
KW   Down's Syndrome.
XX
OS   Homo sapiens.
XX
PN   WO9941279-A2.
XX
PD   19-AUG-1999.
XX
PF   12-FEB-1999;   99WO-US03231.
XX
PR   13-FEB-1998;   98US-0074658.
XX
PA   (ARCH-) ARCH DEV CORP.
XX
PI   Lynn DG,  Meredith SC,  Burkoth TS;
XX
DR   WPI; 1999-561326/47.
XX
PT   Inhibiting amyloid plaque formation in humans suffering from
PT   amyloidosis, Alzheimer's disease or Down's Syndrome -
XX
PS   Claim 21; Page 140; 141pp; English.
XX
CC   This invention describes a novel method for inhibiting amyloid
CC   fibrillogenesis which comprises contacting tissue with a composition
CC   comprising an amyloidogenic peptide, beta-amyloid, that has been blocked
CC   at an end terminal or a side chain, by conjugation to polyethylene
CC   glycol, by conjugation to a second compound and a pharmaceutically
CC   acceptable buffer, solvent or diluent. The methods are used to inhibit
CC   amyloid plaque formation in humans suffering from amyloidosis,
CC   Alzheimer's disease or Down's Syndrome. This sequence represents a
CC   fragment of the beta-amyloid peptide described in the method of the
CC   invention.
XX
SQ   Sequence   42 AA;

  Query Match             100.0%;  Score 217;  DB 20;  Length 42;
  Best Local Similarity   100.0%;  Pred. No. 8.2e-25;
  Matches   42;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 42
          |||||||||||||||||||||||||||||||||||||||||||
Db      1 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 42


RESULT 11
AAY25137
ID   AAY25137 standard; peptide; 42 AA.
XX
AC   AAY25137;
XX
DT   26-AUG-1999  (first entry)
XX
DE   Human amyloid beta-A4 peptide 5.
XX
KW   Amyloid protein; beta-A4 peptide; aggregation; screening; inhibition;
KW   therapeutic drug; brain; Alzheimer's disease.
XX
OS   Homo sapiens.
XX
PN   US5919631-A.
XX
PD   06-JUL-1999.
XX
PF   17-JUL-1996;   96US-0682245.
XX
PR   17-JUL-1996;   96US-0682245.
XX
PA   (HMRI ) HOECHST MARION ROUSSEL INC.
XX
```

PI Goyal S, Paul JW, Riedel NG, Sahasrabudhe SR;
XX
DR WPI; 1999-403957/34.
XX
PT Determination of degree of aggregation of a peptide, useful for
PT identifying therapeutic drugs for treating Alzheimer's disease
XX
PS Claim 1; Column 7-8; 8pp; English.
XX
CC This invention describes a novel method for the determination of the
CC degree of aggregation of an amyloid beta A4 peptide (I) in solution.
CC Determination comprises: (a) incubating a sample of unaggregated
CC (I) with Coomassie Brilliant Blue G 250 dye (II) which only binds to
CC unaggregated (I); (b) measuring the amount of (II) bound to (I) to
CC obtain a value (i); (c) repeating steps (a) and (b) with a second
CC sample at a different time to obtain a second value (ii); and (d)
CC determining the difference between (i) and (ii) which is inversely
CC related to the degree of aggregation of (I). This method may be
CC applied to a screen for compounds that inhibit aggregation of (I).
CC These inhibitors may be used as therapeutic drugs to inhibit the
CC formation of these aggregates in the brains of patients suffering
CC from Alzheimer's disease.
XX
SQ Sequence 42 AA;

Query Match 100.0%; Score 217; DB 20; Length 42;
Best Local Similarity 100.0%; Pred. No. 8.2e-25;
Matches 42; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 42
||||||||||||||||||||||||||||||||||||||||||
Db 1 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 42

RESULT 12
AAY08607
ID AAY08607 standard; Protein; 42 AA.
XX
AC AAY08607;
XX
DT 05-AUG-1999 (first entry)
XX
DE Human beta-amyloid precursor core protein A42.
XX
KW APP; beta-amyloid precursor protein; human; transgenic mice; pathology;
KW Alzheimer's disease; model; therapeutic compound; brain; mechanism;
KW nerve tissue specific promoter; synthesis; inhibitor; deposition;
KW plaque formation; treatment; A42.
XX
OS Homo sapiens.
XX
PN US5912410-A.
XX
PD 15-JUN-1999.
XX
PF 13-APR-1995; 95US-0422333.
XX
PR 21-OCT-1994; 94US-0327381.
PR 15-JUN-1990; 90US-0538857.
PR 17-JUN-1991; 91US-0716725.
PR 13-APR-1995; 95US-0422333.
XX
PA (SCIO-) SCIOS INC.
XX
PI Cordell B;
XX
DR WPI; 1999-357231/30.
XX
PT Transgenic mice useful for studying compounds potentially useful in
PT the treatment of Alzheimer's disease
XX
PS Disclosure; Fig 3; 72pp; English.
XX
CC This invention describes novel transgenic mice expressing proteins
CC related to the pathology of Alzheimer's disease and which provide models
CC for studying potentially therapeutic compounds. The transgenic mice
CC contain a DNA sequence encoding a beta-amyloid precursor protein (APP)
CC and a nerve tissue specific promoter operably linked to the beta-APP
CC allowing its expression to form beta-amyloid protein deposits in the
CC animal's brain. The transgenic mouse is useful for elucidating the
CC molecular mechanisms involved in the synthesis of and, more importantly,
CC inhibiting the synthesis and deposition of beta-amyloid proteins (most
CC importantly in the brain where plaque formation is associated with
CC Alzheimer's disease) by inhibiting production and/or increasing cleavage
CC after production. The transgenic animals provide useful models for
CC studying the in vivo relationships of the proteins to each other and to
CC other compounds being tested for their usefulness in treating Alzheimer's
CC disease.
XX
SQ Sequence 42 AA;

Query Match 100.0%; Score 217; DB 20; Length 42;
Best Local Similarity 100.0%; Pred. No. 8.2e-25;
Matches 42; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 42
||||||||||||||||||||||||||||||||||||||||||
Db 1 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 42

RESULT 13
AAW29093
ID AAW29093 standard; peptide; 42 AA.
XX
AC AAW29093;
XX
DT 20-JUL-1999 (first entry)
XX
DE A-beta-binding peptide 1-42.
XX
KW Cyclosporin; A-beta peptide; conjugate; neurological disease;
KW Alzheimer; multiple sclerosis; amyotrophic lateral sclerosis;
KW ALS; non-immunosuppressive; amyloid plaque formation.
XX
OS Homo sapiens.
XX
PN WO9910374-A1.
XX
PD 04-MAR-1999.
XX
PF 25-AUG-1998; 98WO-US17544.
XX
PR 26-AUG-1997; 97US-0057751.
XX
PA (WISC) WISCONSIN ALUMNI RES FOUND.
XX
PI Rich DH, Solomon ME;
XX
DR WPI; 1999-276928/23.
XX
PT New A-beta-binding peptide conjugates and CsA analogs - useful in
PT treatment of neurological diseases e.g. Alzheimer's disease,
PT multiple sclerosis etc.
XX
PS Claim 5; Page 98; 129pp; English.
XX
CC New conjugates are disclosed which are of formula A-Z, in which: A is
CC (1) a cyclosporin A analogue described in AAW29087 or (2) an FK506
CC binding peptide inhibitor; and Z is a polypeptide comprising 5 or more
CC contiguous residues of A-beta peptide. The compounds are novel chemical
CC inducers of dimerization which are non-immunosuppressive and which are
CC inhibitors of A-beta peptide aggregation and deposition in amyloid
CC plaques. The adverse consequences of amyloid plaque formation can be
CC prevented or ameliorated by sequestering the A-beta peptide in monomeric
CC form with a conjugate which links the A-beta to cyclophilin or FKBP,
CC therefore providing a mechanism to minimize the amount of free A-beta

```
CC   available for fibril formation and deposition. The compounds can be used
CC   for the treatment of Alzheimer's disease, multiple sclerosis and
CC   amyotrophic lateral sclerosis.
XX
SQ   Sequence   42 AA;

  Query Match           100.0%;  Score 217;  DB 20;  Length 42;
  Best Local Similarity  100.0%;  Pred. No. 8.2e-25;
  Matches   42;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 42
          ||||||||||||||||||||||||||||||||||||||||||
Db      1 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 42


RESULT 14
AAW99585
ID   AAW99585 standard; peptide; 42 AA.
XX
AC   AAW99585;
XX
DT   22-JUN-1999  (first entry)
XX
DE   Mutant aggregating amyloid-beta peptide.
XX
KW   Aggregation; amyloid-beta peptide; fluorescent group; detection;
KW   diagnosis; Alzheimer's disease.
XX
OS   Homo sapiens.
OS   Synthetic.
XX
PN   WO9908695-A1.
XX
PD   25-FEB-1999.
XX
PF   13-AUG-1998;   98WO-US16809.
XX
PR   14-AUG-1997;   97US-0055660.
XX
PA   (REGC ) UNIV CALIFORNIA.
XX
PI   Garzon-Rodriguez W,  Glabe C;
XX
DR   WPI; 1999-190112/16.
XX
PT   New fluorescent labeled amyloid A-beta peptides
XX
PS   Example 1; Page 21; 50pp; English.
XX
CC   This sequence corresponds to a mutant aggregating amyloid-beta peptide
CC   which can be covalently labelled with a fluorescent group. The detection
CC   or monitoring of an amyloid aggregate in a sample can be used to diagnose
CC   or detect a predisposition to Alzheimer's disease. The screening assays
CC   can be used to identify compounds for the treatment or amelioration of
CC   Alzheimer's disease or its symptoms. The fluorescent derivatives of the
CC   amyloid-beta peptide are also useful for exploring other aspects of
CC   amyloid structure.
XX
SQ   Sequence   42 AA;

  Query Match           100.0%;  Score 217;  DB 20;  Length 42;
  Best Local Similarity  100.0%;  Pred. No. 8.2e-25;
  Matches   42;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 42
          ||||||||||||||||||||||||||||||||||||||||||
Db      1 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 42


RESULT 15
AAW92726
ID   AAW92726 standard; peptide; 42 AA.
XX
AC   AAW92726;
XX
DT   30-APR-1999  (first entry)
XX
DE   Human tachykinin agonist beta-amyloid peptide fragment #72.
XX
KW   Tachykinin agonist; beta-amyloid; inhibition; neurotoxin; treatment;
KW   Alzheimer's disease; Down's syndrome; amyloidosis; human;
KW   hereditary cerebral haemorrhage; non-inherited congophilic angiopathy.
XX
OS   Homo sapiens.
XX
PN   US5876948-A.
XX
PD   02-MAR-1999.
XX
PF   27-JUL-1991;   91US-0737371.
XX
PR   29-JUL-1991;   91US-0737371.
PR   27-JUL-1990;   90US-0559173.
XX
PA   (CHIL-) CHILDRENS MEDICAL CENT.
XX
PI   Yankner BA;
XX
DR   WPI; 1999-189630/16.
XX
PT   Screening for neurotoxin inhibitors - by testing compounds for their
PT   effect on beta-amyloid peptide neurotoxic effect on neuronal cells
XX
PS   Disclosure; Column 41-42; 28pp; English.
XX
CC   This invention describes a method for screening compounds for inhibiting
CC   a neurotoxin. The method involves incubating tachykinin agonists with
CC   neuronal cells and a beta-amyloid peptide neurotoxin. The methods can be
CC   used for identifying compounds for treating diseases characterised by an
CC   undesirable build up of beta-amyloid protein, e.g. Alzheimer's disease,
CC   Down's syndrome, and the syndromes of hereditary cerebral haemorrhage
CC   with amyloidosis and non-inherited congophilic angiopathy with cerebral
CC   haemorrhage. AAW92655-W92731 are tachykinin agonists derived from human
CC   beta-amyloid peptide fragments.
XX
SQ   Sequence   42 AA;

  Query Match           100.0%;  Score 217;  DB 20;  Length 42;
  Best Local Similarity  100.0%;  Pred. No. 8.2e-25;
  Matches   42;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 42
          ||||||||||||||||||||||||||||||||||||||||||
Db      1 DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA 42


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Job time : 38 secs
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GenCore version 5.1.4_p5_4578
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OM protein - protein search, using sw model

Run on: April 21, 2003, 12:06:55 ; Search time 28.3333 Seconds
(without alignments)
47.030 Million cell updates/sec

Title: US-09-580-018-8
Perfect score: 10
Sequence: 1 MDAEFRHDSG 10

Scoring table: OLIGO
Gapop 60.0 , Gapext 60.0

Searched: 908470 seqs, 133250620 residues

Word size : 0

Total number of hits satisfying chosen parameters: 174064

Minimum DB seq length: 0
Maximum DB seq length: 10

Post-processing: Listing first 45 summaries

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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	10	100.0	10	22	AAB46212	Human APP derived
2	9	90.0	10	15	AAR58928	Human amyloid prec
3	9	90.0	10	22	AAB46211	Human APP derived
4	9	90.0	10	22	AAB46213	Human APP derived
5	8	80.0	8	23	AAU78518	N terminus of beta
6	8	80.0	10	22	AAB46210	Human APP derived
7	8	80.0	10	22	AAB46214	Human APP derived
8	7	70.0	7	22	AAB46202	Human APP A-beta p
9	7	70.0	7	23	AAO14421	Synthetic peptide
10	7	70.0	8	19	AAW70865	Beta-amyloid pepti
11	7	70.0	10	22	AAB46209	Human APP derived
12	7	70.0	10	22	AAB46215	Human APP derived
13	6	60.0	6	19	AAW70868	Beta-amyloid pepti
14	6	60.0	10	13	AAR24262	Human amyloidin pr
15	6	60.0	10	13	AAR24261	Human amyloidin pr
16	6	60.0	10	21	AAY69703	Beta-APP alpha-sec
17	6	60.0	10	21	AAY69704	Beta-APP alpha-sec
18	6	60.0	10	21	AAY69708	Beta-APP alpha-sec
19	6	60.0	10	22	AAE10654	Human wild-type AP
20	6	60.0	10	22	AAE06899	Human amyloid prec
21	6	60.0	10	22	AAU06628	Asp2 recognition s
22	6	60.0	10	22	AAU07227	Human beta-amyloid
23	6	60.0	10	22	AAE02606	Human wild-type AP
24	6	60.0	10	22	AAB66574	Synthetic peptide
25	6	60.0	10	22	AAB46208	Human APP derived
26	6	60.0	10	22	AAB46216	Human APP derived
27	6	60.0	10	22	AAB61336	Sythetic peptide f
28	6	60.0	10	23	AAU99490	Peptide #1 used as
29	6	60.0	10	23	ABB78615	Beta-secretase spe
30	6	60.0	10	23	ABB06426	Human APP beta-sec
31	5	50.0	5	14	AAR37864	Beta-amyloid prote
32	5	50.0	5	20	AAY08608	Human NSE promoter
33	5	50.0	5	21	AAY69702	Beta-APP alpha-sec
34	5	50.0	5	22	AAE10667	Human APP-Sw mutan
35	5	50.0	5	22	AAE06907	Human Asp-2 beta-s
36	5	50.0	5	22	AAU06636	Peptide product of
37	5	50.0	5	22	AAU07235	Human beta-amyloid
38	5	50.0	6	19	AAW70864	Beta-amyloid pepti
39	5	50.0	6	22	AAB46199	Human APP A-beta 1
40	5	50.0	6	22	AAB49095	Human amyloid beta
41	5	50.0	7	23	AAE19124	Beta-secretase pep
42	5	50.0	8	18	AAW19494	Immunogen for rais
43	5	50.0	8	18	AAW19507	Immunogen for rais
44	5	50.0	8	21	AAY94772	Beta-secretase sub
45	5	50.0	8	22	AAE10660	Human Aspartyl pro

ALIGNMENTS

RESULT 1
AAB46212
ID AAB46212 standard; peptide; 10 AA.
XX
AC AAB46212;
XX
DT 04-APR-2001 (first entry)
XX
DE Human APP derived immunogenic peptide #8.
XX
KW Amyloid deposit; APP; Abeta; brain; human; clearing response; nootropic;
KW Fc receptor mediated phagocytosis; immunogenic response; neuroprotective;
KW amyloid precursor protein; Alzheimer's disease.
XX
OS Homo sapiens.
XX
PN WO200072880-A2.
XX
PD 07-DEC-2000.
XX
PF 26-MAY-2000; 2000WO-US14810.
XX
PR 28-MAY-1999; 99US-0322289.
XX
PA (NEUR-) NEURALAB LTD.
XX
PI Schenk DB, Bard F, Vasquez NJ, Yednock T;
XX
DR WPI; 2001-032104/04.
XX
PT Preventing or treating a disease associated with amyloid deposits,
PT especially Alzheimer's disease, comprises administering amyloid
PT specific antibody -

```
XX
PS   Disclosure; Figure 19; 143pp; English.
XX
CC   This invention describes a novel method of preventing or treating a
CC   disease associated with amyloid deposits of amyloid precursor protein
CC   (APP) Abeta fragments in the brain of a patient, which comprises
CC   administering to the patient: (a) an antibody that binds to Abeta, the
CC   antibody binds to an amyloid deposit and induces a clearing response (Fc
CC   receptor mediated phagocytosis) against it (b) a polypeptide containing
CC   an N-terminal segment of at least residues 1-5 of Abeta; or (c) an agent
CC   that induces an immunogenic response against residues 1-3 to 7-11 of
CC   Abeta. The products of the invention have nootropic and neuroprotective
CC   activity. The method is also useful for monitoring a course of treatment
CC   being administered to a patient e.g. active and passive immunization. The
CC   methods are useful for prophylactic and therapeutic treatment of
CC   Alzheimer's disease.
XX
SQ   Sequence   10 AA;

  Query Match             100.0%;  Score 10;  DB 22;  Length 10;
  Best Local Similarity   100.0%;  Pred. No. 2.3e-05;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 MDAEFRHDSG 10
          ||||||||||
Db      1 MDAEFRHDSG 10


RESULT 2
AAR58928
ID   AAR58928 standard; peptide; 10 AA.
XX
AC   AAR58928;
XX
DT   15-APR-1995  (first entry)
XX
DE   Human amyloid precursor protein APP695 residues 597-606.
XX
KW   Amyloid precursor protein; isoform APP 695; beta amyloid;
KW   Alzheimer's disease.
XX
OS   Homo sapiens.
XX
PN   WO9419692-A.
XX
PD   01-SEP-1994.
XX
PF   17-FEB-1994;   94WO-US01712.
XX
PR   18-FEB-1993;   93US-0019208.
XX
PA   (GEHO ) GEN HOSPITAL CORP.
XX
PI   Nishimoto I;
XX
DR   WPI; 1994-294486/36.
XX
PT   Identifying cpds. useful for treating or preventing Alzheimer's
PT   disease - by determining whether it interferes with the
PT   association of the couplone portion of amyloid precursor protein
PT   to G polypeptide
XX
PS   Disclosure; Page 33; 71pp; English.
XX
CC   Beta amyloid is synthesised as part of a larger protein referred to
CC   as amyloid precursor protein (APP), which has a number of isoforms
CC   in humans, including APP695 and APP770. The amino terminal of beta
CC   amyloid is generated by cleavage of a peptide bond of APP which in
CC   APP695 lies between Met596 and Asp597. APP forms a complex with Go,
CC   a GTP-binding protein (or "G protein") in brain. Go is made of one
CC   alpha subunit and one Beta-gamma subunit. Two isoforms of Go, known
CC   as Go1 (or GoA) and Go2 (or GoB) have been identified; they have
CC   slight AA differences in their alpha subunits. The cDNA sequence and
CC   deduced AA sequence of the alpha subunits in each of Go1 and Go2 are
CC   shown in AAQ69002/R58914 and AAQ69004/R58924 respectively. The
CC   cytoplasmic App695 sequence His657-Lys676 (AAR58913) possesses a
CC   specific Go-activating function, and is necessary for complex
CC   formation of this APP with Go. AAR58928 is another peptide of
CC   APP695 which corresp. to AAs 597-606.
XX
SQ   Sequence   10 AA;

  Query Match             90.0%;  Score 9;  DB 15;  Length 10;
  Best Local Similarity   100.0%;  Pred. No. 0.00033;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      2 DAEFRHDSG 10
          |||||||||
Db      1 DAEFRHDSG 9


RESULT 3
AAB46211
ID   AAB46211 standard; peptide; 10 AA.
XX
AC   AAB46211;
XX
DT   04-APR-2001  (first entry)
XX
DE   Human APP derived immunogenic peptide #7.
XX
KW   Amyloid deposit; APP; Abeta; brain; human; clearing response; nootropic;
KW   Fc receptor mediated phagocytosis; immunogenic response; neuroprotective;
KW   amyloid precursor protein; Alzheimer's disease.
XX
OS   Homo sapiens.
XX
PN   WO200072880-A2.
XX
PD   07-DEC-2000.
XX
PF   26-MAY-2000; 2000WO-US14810.
XX
PR   28-MAY-1999;   99US-0322289.
XX
PA   (NEUR-) NEURALAB LTD.
XX
PI   Schenk DB,  Bard F,  Vasquez NJ,  Yednock T;
XX
DR   WPI; 2001-032104/04.
XX
PT   Preventing or treating a disease associated with amyloid deposits,
PT   especially Alzheimer's disease, comprises administering amyloid
PT   specific antibody -
XX
PS   Disclosure; Figure 19; 143pp; English.
XX
CC   This invention describes a novel method of preventing or treating a
CC   disease associated with amyloid deposits of amyloid precursor protein
CC   (APP) Abeta fragments in the brain of a patient, which comprises
CC   administering to the patient: (a) an antibody that binds to Abeta, the
CC   antibody binds to an amyloid deposit and induces a clearing response (Fc
CC   receptor mediated phagocytosis) against it (b) a polypeptide containing
CC   an N-terminal segment of at least residues 1-5 of Abeta; or (c) an agent
CC   that induces an immunogenic response against residues 1-3 to 7-11 of
CC   Abeta. The products of the invention have nootropic and neuroprotective
CC   activity. The method is also useful for monitoring a course of treatment
CC   being administered to a patient e.g. active and passive immunization. The
CC   methods are useful for prophylactic and therapeutic treatment of
CC   Alzheimer's disease.
XX
SQ   Sequence   10 AA;

  Query Match             90.0%;  Score 9;  DB 22;  Length 10;
  Best Local Similarity   100.0%;  Pred. No. 0.00033;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;
```

```
Qy      1 MDAEFRHDS 9
          |||||||||
Db      2 MDAEFRHDS 10


RESULT 4
AAB46213
ID   AAB46213 standard; peptide; 10 AA.
XX
AC   AAB46213;
XX
DT   04-APR-2001  (first entry)
XX
DE   Human APP derived immunogenic peptide #9.
XX
KW   Amyloid deposit; APP; Abeta; brain; human; clearing response; nootropic;
KW   Fc receptor mediated phagocytosis; immunogenic response; neuroprotective;
KW   amyloid precursor protein; Alzheimer's disease.
XX
OS   Homo sapiens.
XX
PN   WO200072880-A2.
XX
PD   07-DEC-2000.
XX
PF   26-MAY-2000; 2000WO-US14810.
XX
PR   28-MAY-1999;   99US-0322289.
XX
PA   (NEUR-) NEURALAB LTD.
XX
PI   Schenk DB,  Bard F,  Vasquez NJ,  Yednock T;
XX
DR   WPI; 2001-032104/04.
XX
PT   Preventing or treating a disease associated with amyloid deposits,
PT   especially Alzheimer's disease, comprises administering amyloid
PT   specific antibody  -
XX
PS   Disclosure; Figure 19; 143pp; English.
XX
CC   This invention describes a novel method of preventing or treating a
CC   disease associated with amyloid deposits of amyloid precursor protein
CC   (APP) Abeta fragments in the brain of a patient, which comprises
CC   administering to the patient: (a) an antibody that binds to Abeta, the
CC   antibody binds to an amyloid deposit and induces a clearing response (Fc
CC   receptor mediated phagocytosis) against it (b) a polypeptide containing
CC   an N-terminal segment of at least residues 1-5 of Abeta; or (c) an agent
CC   that induces an immunogenic response against residues 1-3 to 7-11 of
CC   Abeta. The products of the invention have nootropic and neuroprotective
CC   activity. The method is also useful for monitoring a course of treatment
CC   being administered to a patient e.g. active and passive immunization. The
CC   methods are useful for prophylactic and therapeutic treatment of
CC   Alzheimer's disease.
XX
SQ   Sequence   10 AA;

  Query Match             90.0%;  Score 9;  DB 22;  Length 10;
  Best Local Similarity   100.0%;  Pred. No. 0.00033;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      2 DAEFRHDSG 10
          |||||||||
Db      1 DAEFRHDSG 9


RESULT 5
AAU78518
ID   AAU78518 standard; Peptide; 8 AA.
XX
AC   AAU78518;
XX
DT   18-JUN-2002  (first entry)
XX
DE   N terminus of beta amyloid.
XX
KW   Alzheimer's disease; beta amyloid precursor protein; mouse;
KW   BACE; beta-site APP cleaving enzyme; nootropic; neuroprotective;
KW   beta-site amyloid precursor protein (APP)-cleaving enzyme; APP;
KW   BACE secretase/sheddase; neurodegenerative disorder.
XX
OS   Mus sp.
XX
PN   WO200210354-A2.
XX
PD   07-FEB-2002.
XX
PF   01-AUG-2001; 2001WO-CA01118.
XX
PR   01-AUG-2000; 2000CA-2313828.
XX
PA   (RECL-) INST RECH CLINIQUES MONTREAL.
XX
PI   Seidah NG,  Chretien M,  Cromlish JA;
XX
DR   WPI; 2002-280632/32.
XX
PT   Modulating activity of beta-site amyloid precursor protein-cleaving
PT   enzyme secretase/sheddase for treatment of neurodegenerative disorder
PT   characterised by generation of Abeta protein, by preventing cleavage of
PT   enzyme  -
XX
PS   Disclosure; Page 28; 64pp; English.
XX
CC   This invention relates to a novel method for modulating activity of
CC   beta-site amyloid precursor protein (APP)-cleaving enzyme (BACE)
CC   secretase/sheddase. Cleavage of BACE by this enzyme results in the
CC   generation of a soluble BACE which enhances the production of the
CC   amyloidogenic peptide Abeta which has been shown to be involved in the
CC   aetiology of Alzheimer's disease. Inhibition of BACE secretase can be
CC   achieved by administration of an antisense nucleotide molecule capable
CC   of hybridising with BACE mRNA, by using a ribozyme that targets and
CC   degrades BACE secretase mRNA, with a peptide that can interfere with
CC   binding of the enzyme with BACE or using an antibody or antagonist that
CC   can function as an inhibitor of BACE secretase activation. The methods
CC   of the invention modulate the activity of BACE secretase/sheddase by
CC   preventing cleavage of BACE, which is useful for the treatment of a
CC   neurodegenerative disorder characterised by the generation of Abeta
CC   protein, especially Alzheimer's disease. The invention also comprises a
CC   method for identification of an agent that can alter the ability of BACE
CC   secretase to associate with and process a known substrate, this method
CC   can be used for high throughput screening of candidate molecules. The
CC   invention also comprises a method for determining whether an individual
CC   is at risk of developing a neurodegenerative disorder characterised
CC   by the generation of Abeta protein by measuring the levels of BACE
CC   C terminal cleavage products in a sample or tissue where an increase
CC   in cleavage products indicates a person at risk. The present sequence
CC   represents the N terminal of a beta amyloid protein of the
CC   invention.
XX
SQ   Sequence   8 AA;

  Query Match             80.0%;  Score 8;  DB 23;  Length 8;
  Best Local Similarity   100.0%;  Pred. No. 7.8e+05;
  Matches    8;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      2 DAEFRHDS 9
          ||||||||
Db      1 DAEFRHDS 8


RESULT 6
AAB46210
ID   AAB46210 standard; peptide; 10 AA.
XX
```

```
AC   AAB46210;
XX
DT   04-APR-2001  (first entry)
XX
DE   Human APP derived immunogenic peptide #6.
XX
KW   Amyloid deposit; APP; Abeta; brain; human; clearing response; nootropic;
KW   Fc receptor mediated phagocytosis; immunogenic response; neuroprotective;
KW   amyloid precursor protein; Alzheimer's disease.
XX
OS   Homo sapiens.
XX
PN   WO200072880-A2.
XX
PD   07-DEC-2000.
XX
PF   26-MAY-2000; 2000WO-US14810.
XX
PR   28-MAY-1999;   99US-0322289.
XX
PA   (NEUR-) NEURALAB LTD.
XX
PI   Schenk DB,  Bard F,  Vasquez NJ,  Yednock T;
XX
DR   WPI; 2001-032104/04.
XX
PT   Preventing or treating a disease associated with amyloid deposits,
PT   especially Alzheimer's disease, comprises administering amyloid
PT   specific antibody  -
XX
PS   Disclosure; Figure 19; 143pp; English.
XX
CC   This invention describes a novel method of preventing or treating a
CC   disease associated with amyloid deposits of amyloid precursor protein
CC   (APP) Abeta fragments in the brain of a patient, which comprises
CC   administering to the patient: (a) an antibody that binds to Abeta, the
CC   antibody binds to an amyloid deposit and induces a clearing response (Fc
CC   receptor mediated phagocytosis) against it (b) a polypeptide containing
CC   an N-terminal segment of at least residues 1-5 of Abeta; or (c) an agent
CC   that induces an immunogenic response against residues 1-3 to 7-11 of
CC   Abeta. The products of the invention have nootropic and neuroprotective
CC   activity. The method is also useful for monitoring a course of treatment
CC   being administered to a patient e.g. active and passive immunization. The
CC   methods are useful for prophylactic and therapeutic treatment of
CC   Alzheimer's disease.
XX
SQ   Sequence   10 AA;

  Query Match             80.0%;  Score 8;  DB 22;  Length 10;
  Best Local Similarity   100.0%;  Pred. No. 0.0048;
  Matches    8;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 MDAEFRHD 8
            ||||||||
Db       3 MDAEFRHD 10


RESULT 7
AAB46214
ID   AAB46214 standard; peptide; 10 AA.
XX
AC   AAB46214;
XX
DT   04-APR-2001  (first entry)
XX
DE   Human APP derived immunogenic peptide #10.
XX
KW   Amyloid deposit; APP; Abeta; brain; human; clearing response; nootropic;
KW   Fc receptor mediated phagocytosis; immunogenic response; neuroprotective;
KW   amyloid precursor protein; Alzheimer's disease.
XX
OS   Homo sapiens.
XX
PN   WO200072880-A2.
XX
PD   07-DEC-2000.
XX
PF   26-MAY-2000; 2000WO-US14810.
XX
PR   28-MAY-1999;   99US-0322289.
XX
PA   (NEUR-) NEURALAB LTD.
XX
PI   Schenk DB,  Bard F,  Vasquez NJ,  Yednock T;
XX
DR   WPI; 2001-032104/04.
XX
PT   Preventing or treating a disease associated with amyloid deposits,
PT   especially Alzheimer's disease, comprises administering amyloid
PT   specific antibody  -
XX
PS   Disclosure; Figure 19; 143pp; English.
XX
CC   This invention describes a novel method of preventing or treating a
CC   disease associated with amyloid deposits of amyloid precursor protein
CC   (APP) Abeta fragments in the brain of a patient, which comprises
CC   administering to the patient: (a) an antibody that binds to Abeta, the
CC   antibody binds to an amyloid deposit and induces a clearing response (Fc
CC   receptor mediated phagocytosis) against it (b) a polypeptide containing
CC   an N-terminal segment of at least residues 1-5 of Abeta; or (c) an agent
CC   that induces an immunogenic response against residues 1-3 to 7-11 of
CC   Abeta. The products of the invention have nootropic and neuroprotective
CC   activity. The method is also useful for monitoring a course of treatment
CC   being administered to a patient e.g. active and passive immunization. The
CC   methods are useful for prophylactic and therapeutic treatment of
CC   Alzheimer's disease.
XX
SQ   Sequence   10 AA;

  Query Match             80.0%;  Score 8;  DB 22;  Length 10;
  Best Local Similarity   100.0%;  Pred. No. 0.0048;
  Matches    8;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       3 AEFRHDSG 10
            ||||||||
Db       1 AEFRHDSG 8


RESULT 8
AAB46202
ID   AAB46202 standard; peptide; 7 AA.
XX
AC   AAB46202;
XX
DT   04-APR-2001  (first entry)
XX
DE   Human APP A-beta protein N-terminal fragment.
XX
KW   Amyloid deposit; APP; Abeta; brain; human; clearing response; nootropic;
KW   Fc receptor mediated phagocytosis; immunogenic response; neuroprotective;
KW   amyloid precursor protein; Alzheimer's disease.
XX
OS   Homo sapiens.
XX
PN   WO200072880-A2.
XX
PD   07-DEC-2000.
XX
PF   26-MAY-2000; 2000WO-US14810.
XX
PR   28-MAY-1999;   99US-0322289.
XX
PA   (NEUR-) NEURALAB LTD.
XX
PI   Schenk DB,  Bard F,  Vasquez NJ,  Yednock T;
XX
```

DR WPI; 2001-032104/04.
XX
PT Preventing or treating a disease associated with amyloid deposits,
PT especially Alzheimer's disease, comprises administering amyloid
PT specific antibody -
XX
PS Claim 59; Page 119; 143pp; English.
XX
CC This invention describes a novel method of preventing or treating a
CC disease associated with amyloid deposits of amyloid precursor protein
CC (APP) Abeta fragments in the brain of a patient, which comprises
CC administering to the patient: (a) an antibody that binds to Abeta, the
CC antibody binds to an amyloid deposit and induces a clearing response (Fc
CC receptor mediated phagocytosis) against it (b) a polypeptide containing
CC an N-terminal segment of at least residues 1-5 of Abeta; or (c) an agent
CC that induces an immunogenic response against residues 1-3 to 7-11 of
CC Abeta. The products of the invention have nootropic and neuroprotective
CC activity. The method is also useful for monitoring a course of treatment
CC being administered to a patient e.g. active and passive immunization. The
CC methods are useful for prophylactic and therapeutic treatment of
CC Alzheimer's disease.
XX
SQ Sequence 7 AA;

Query Match 70.0%; Score 7; DB 22; Length 7;
Best Local Similarity 100.0%; Pred. No. 7.8e+05;
Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 2 DAEFRHD 8
|||||||
Db 1 DAEFRHD 7

RESULT 9
AAO14421
ID AAO14421 standard; Peptide; 7 AA.
XX
AC AAO14421;
XX
DT 02-MAY-2002 (first entry)
XX
DE Synthetic peptide of A-Beta residues 1-7 (DAEFRHD).
XX
KW Neurodegenerative disorder; Alzheimer's disease; AD; T714I; APP; APP714;
KW amyloid precursor protein; amyloid Beta peptide; A-Beta; A-Beta40; brain;
KW A-Beta42; plaque pathology; pre-amyloid; cerebral amyloid angiopathy;
KW Dense-cored plaque; CAA; senile plaque core; amyloid cascade; murine;
KW mouse; DAEFRHD; monoclonal antibody.
XX
OS Mus sp.
OS Synthetic.
XX
PN WO200202769-A1.
XX
PD 10-JAN-2002.
XX
PF 06-JUL-2001; 2001WO-EP07830.
XX
PR 06-JUL-2000; 2000EP-0202362.
XX
PA (VLAA-) VLAAMS INTERUNIVERSITAIR INST BIOTECHNOG.
XX
PI Cruts M, De Jonghe C, Kumar Singh S, Van Broeckhoven C;
XX
DR WPI; 2002-154742/20.
XX
PT Novel polynucleotide sequence encoding a mutant of amyloid precursor
PT protein 70, useful for screening for a molecule capable of reducing the
PT formation of beta amyloid 42 peptide -
XX
PS Disclosure; Page 21; 42pp; English.
XX
CC The invention relates to the field of the neurodegenerative disorder of
CC Alzheimer's disease (AD). In particular, the invention provides a novel
CC mutation (T714I) identified in the amyloid precursor protein (APP),
CC APP714, which leads to a very aggressive form of AD. The mutation
CC involves the 43rd codon of the amyloid Beta peptide (A-Beta)
CC corresponding to the putative gamma 42-secretase cleavage site. The
CC novel mutation alters both A-Beta40 and A-Beta42 secretion elevating
CC the A-Beta42/A-Beta40 ratio by 10-fold in vitro. Furthermore, the main
CC amyloid plaque pathology in brains of these patients is of the diffuse
CC 'pre-amyloid' type composed primarily of N-truncated A-Beta42. Dense-
CC cored plaques although not absent, were significantly reduced. Also, the
CC usual sites in brain where A-Beta40 is predominantly deposited, for
CC instance, in vessels as cerebral amyloid angiopathy (CAA) or senile
CC plaque cores, were composed entirely of A-Beta42 form. Together, these
CC indicate that deposition of N-truncated A-Beta42 in one of the earliest
CC amyloid deposited in the brain, the diffuse plaques, is fully competent
CC of inciting AD either through the well-established 'amyloid cascade' or
CC by a yet unknown mechanism(s). This sequence represents a synthetic
CC peptide of A-Beta, residues 1-7 (DAEFRHD). This sequence was used for
CC raising a monoclonal antibody specific for the N-terminus of A-Beta40 and
CC A-Beta42 by immunising mice with the synthetic peptide.
XX
SQ Sequence 7 AA;

Query Match 70.0%; Score 7; DB 23; Length 7;
Best Local Similarity 100.0%; Pred. No. 7.8e+05;
Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 2 DAEFRHD 8
|||||||
Db 1 DAEFRHD 7

RESULT 10
AAW70865
ID AAW70865 standard; peptide; 8 AA.
XX
AC AAW70865;
XX
DT 04-FEB-1999 (first entry)
XX
DE Beta-amyloid peptide to create a monoclonal antibody.
XX
KW Beta-amyloid precursor protein; beta-APP; beta-amyloid peptide;
KW antibody; amyloid deposit; Alzheimer's disease.
XX
OS Synthetic.
OS Homo sapiens.
XX
PN WO9844955-A1.
XX
PD 15-OCT-1998.
XX
PF 09-APR-1998; 98WO-US06900.
XX
PR 09-APR-1997; 97US-0041850.
XX
PA (MCIN/) MCINNIS P A.
PA (MIND-) MINDSET LTD.
XX
PI Chain DG;
XX
DR WPI; 1998-594476/50.
XX
PT Preventing or inhibiting progression of Alzheimer's Disease -
PT comprises use of recombinant DNA encoding an antibody specific for
PT the N- or C-terminus of an amyloid-beta peptide
XX
PS Example 1; Page 46; 58pp; English.
XX
CC The present sequence represents a peptide derived from beta-amyloid
CC precursor protein (beta-APP, see AAW70863). The peptide is a
CC beta-amyloid peptide and is used to produce a monoclonal antibody
CC designated antisenilin N1/7. The specification describes a method for

CC prevention or inhibition of progression of Alzheimer's disease. The
CC method comprises administering a composition comprising a recombinant DNA
CC molecule containing a gene encoding a recombinant antibody end-specific
CC for the N-terminus or the C-terminus of an amyloid-beta peptide, operably
CC linked to a promoter which is expressed in the central nervous system.
CC The recombinant antibody molecules prevent the accumulation of
CC beta-amyloid peptides in the extracellular space, interstitial fluid and
CC cerebrospinal fluid and the aggregation of such peptides into amyloid
CC deposits in the brain. They also inhibit the progression of Alzheimer's
CC disease by inhibiting the interaction of beta-amyloid peptides mediating
CC Alzheimer's disease induced neurotoxicity and inhibiting the Alzheimer's
CC disease induced complement activation and cytokine release involved in
CC the inflammatory process.
XX
SQ Sequence 8 AA;

Query Match 70.0%; Score 7; DB 19; Length 8;
Best Local Similarity 100.0%; Pred. No. 7.8e+05;
Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 2 DAEFRHD 8
|||||||
Db 1 DAEFRHD 7

RESULT 11
AAB46209
ID AAB46209 standard; peptide; 10 AA.
XX
AC AAB46209;
XX
DT 04-APR-2001 (first entry)
XX
DE Human APP derived immunogenic peptide #5.
XX
KW Amyloid deposit; APP; Abeta; brain; human; clearing response; nootropic;
KW Fc receptor mediated phagocytosis; immunogenic response; neuroprotective;
KW amyloid precursor protein; Alzheimer's disease.
XX
OS Homo sapiens.
XX
PN WO200072880-A2.
XX
PD 07-DEC-2000.
XX
PF 26-MAY-2000; 2000WO-US14810.
XX
PR 28-MAY-1999; 99US-0322289.
XX
PA (NEUR-) NEURALAB LTD.
XX
PI Schenk DB, Bard F, Vasquez NJ, Yednock T;
XX
DR WPI; 2001-032104/04.
XX
PT Preventing or treating a disease associated with amyloid deposits,
PT especially Alzheimer's disease, comprises administering amyloid
PT specific antibody -
XX
PS Disclosure; Figure 19; 143pp; English.
XX
CC This invention describes a novel method of preventing or treating a
CC disease associated with amyloid deposits of amyloid precursor protein
CC (APP) Abeta fragments in the brain of a patient, which comprises
CC administering to the patient: (a) an antibody that binds to Abeta, the
CC antibody binds to an amyloid deposit and induces a clearing response (Fc
CC receptor mediated phagocytosis) against it (b) a polypeptide containing
CC an N-terminal segment of at least residues 1-5 of Abeta; or (c) an agent
CC that induces an immunogenic response against residues 1-3 to 7-11 of
CC Abeta. The products of the invention have nootropic and neuroprotective
CC activity. The method is also useful for monitoring a course of treatment
CC being administered to a patient e.g. active and passive immunization. The
CC methods are useful for prophylactic and therapeutic treatment of
CC Alzheimer's disease.
XX
SQ Sequence 10 AA;

Query Match 70.0%; Score 7; DB 22; Length 10;
Best Local Similarity 100.0%; Pred. No. 0.069;
Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 MDAEFRH 7
|||||||
Db 4 MDAEFRH 10

RESULT 12
AAB46215
ID AAB46215 standard; peptide; 10 AA.
XX
AC AAB46215;
XX
DT 04-APR-2001 (first entry)
XX
DE Human APP derived immunogenic peptide #11.
XX
KW Amyloid deposit; APP; Abeta; brain; human; clearing response; nootropic;
KW Fc receptor mediated phagocytosis; immunogenic response; neuroprotective;
KW amyloid precursor protein; Alzheimer's disease.
XX
OS Homo sapiens.
XX
PN WO200072880-A2.
XX
PD 07-DEC-2000.
XX
PF 26-MAY-2000; 2000WO-US14810.
XX
PR 28-MAY-1999; 99US-0322289.
XX
PA (NEUR-) NEURALAB LTD.
XX
PI Schenk DB, Bard F, Vasquez NJ, Yednock T;
XX
DR WPI; 2001-032104/04.
XX
PT Preventing or treating a disease associated with amyloid deposits,
PT especially Alzheimer's disease, comprises administering amyloid
PT specific antibody -
XX
PS Disclosure; Figure 19; 143pp; English.
XX
CC This invention describes a novel method of preventing or treating a
CC disease associated with amyloid deposits of amyloid precursor protein
CC (APP) Abeta fragments in the brain of a patient, which comprises
CC administering to the patient: (a) an antibody that binds to Abeta, the
CC antibody binds to an amyloid deposit and induces a clearing response (Fc
CC receptor mediated phagocytosis) against it (b) a polypeptide containing
CC an N-terminal segment of at least residues 1-5 of Abeta; or (c) an agent
CC that induces an immunogenic response against residues 1-3 to 7-11 of
CC Abeta. The products of the invention have nootropic and neuroprotective
CC activity. The method is also useful for monitoring a course of treatment
CC being administered to a patient e.g. active and passive immunization. The
CC methods are useful for prophylactic and therapeutic treatment of
CC Alzheimer's disease.
XX
SQ Sequence 10 AA;

Query Match 70.0%; Score 7; DB 22; Length 10;
Best Local Similarity 100.0%; Pred. No. 0.069;
Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 4 EFRHDSG 10
|||||||
Db 1 EFRHDSG 7

```
RESULT 13
AAW70868
ID   AAW70868 standard; peptide; 6 AA.
XX
AC   AAW70868;
XX
DT   04-FEB-1999  (first entry)
XX
DE   Beta-amyloid peptide to create a monoclonal antibody.
XX
KW   Beta-amyloid precursor protein; beta-APP; beta-amyloid peptide;
KW   antibody; amyloid deposit; Alzheimer's disease.
XX
OS   Synthetic.
OS   Homo sapiens.
XX
PN   WO9844955-A1.
XX
PD   15-OCT-1998.
XX
PF   09-APR-1998;   98WO-US06900.
XX
PR   09-APR-1997;   97US-0041850.
XX
PA   (MCIN/) MCINNIS P A.
PA   (MIND-) MINDSET LTD.
XX
PI   Chain DG;
XX
DR   WPI; 1998-594476/50.
XX
PT   Preventing or inhibiting progression of Alzheimer's Disease -
PT   comprises use of recombinant DNA encoding an antibody specific for
PT   the N- or C-terminus of an amyloid-beta peptide
XX
PS   Example 1; Page 47; 58pp; English.
XX
CC   The present sequence represents a peptide derived from beta-amyloid
CC   precursor protein (beta-APP, see AAW70863). The peptide is a
CC   beta-amyloid peptide and is used to produce a monoclonal antibody. The
CC   specification describes a method for prevention or inhibition of
CC   progression of Alzheimer's disease. The method comprises administering a
CC   composition comprising a recombinant DNA molecule containing a gene
CC   encoding a recombinant antibody end-specific for the N-terminus or the
CC   C-terminus of an amyloid-beta peptide, operably linked to a promoter
CC   which is expressed in the central nervous system. The recombinant
CC   antibody molecules prevent the accumulation of beta-amyloid peptides in
CC   the extracellular space, interstitial fluid and cerebrospinal fluid and
CC   the aggregation of such peptides into amyloid deposits in the brain.
CC   They also inhibit the progression of Alzheimer's disease by inhibiting
CC   the interaction of beta-amyloid peptides mediating Alzheimer's disease
CC   induced neurotoxicity and inhibiting the Alzheimer's disease induced
CC   complement activation and cytokine release involved in the inflammatory
CC   process.
XX
SQ   Sequence   6 AA;

  Query Match             60.0%;  Score 6;  DB 19;  Length 6;
  Best Local Similarity   100.0%;  Pred. No. 7.8e+05;
  Matches    6;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       2 DAEFRH 7
           ||||||
Db       1 DAEFRH 6


RESULT 14
AAR24262
ID   AAR24262 standard; Protein; 10 AA.
XX
AC   AAR24262;
XX
DT   09-NOV-1992  (first entry)
XX
DE   Human amyloidin protease substrate sequence #2.
XX
KW   Alzheimer's disease; beta amyloid precursor protein; APP; zinc;
KW   metalloprotease; hAP; protease inhibitor; APP592-601
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   Modified-site   1
FT                   /note= "Acetylated-Ser"
XX
PN   WO9207068-A.
XX
PD   30-APR-1992.
XX
PF   04-OCT-1991;   91WO-US07290.
XX
PR   05-OCT-1990;   90US-0594122.
PR   30-SEP-1991;   91US-0766351.
XX
PA   (ATHE-) ATHENA NEUROSCIENCES INC.
PA   (ELIL ) LILLY & CO ELI.
XX
PI   Dovey HF,  Johnstone EM,  Little SP,  McConlogue L,  Seubert PA;
PI   Sinha S;
XX
DR   WPI; 1992-167148/20.
XX
PT   Human amyloidin protease - used for cleaving Met-Asp bond in
PT   amyloid-like substrate for identifying protease inhibitors
XX
PS   Example 5; Page 29; 62pp; English.
XX
CC   This synthetic substrate is based on the sequence of residues 592
CC   to 601 of the 695 amino acid APP. Lys595 has been replaced by Gln.
CC   Amyloidin cleaves the Met-Asp bond of this peptide but does not
CC   cleave any of the other bonds.
CC   See AAR24260-3, AAR24266-7 and AAQ24875-Q24887.
XX
SQ   Sequence   10 AA;

  Query Match             60.0%;  Score 6;  DB 13;  Length 10;
  Best Local Similarity   100.0%;  Pred. No. 0.99;
  Matches    6;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 MDAEFR 6
           ||||||
Db       5 MDAEFR 10


RESULT 15
AAR24261
ID   AAR24261 standard; Protein; 10 AA.
XX
AC   AAR24261;
XX
DT   09-NOV-1992  (first entry)
XX
DE   Human amyloidin protease substrate sequence #1.
XX
KW   Alzheimer's disease; beta amyloid precursor protein; APP; zinc;
KW   metalloprotease; hAP; protease inhibitor; APP592-601
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   Modified-site   1
FT                   /note= "Acetylated-Ser"
XX
PN   WO9207068-A.
XX
```

PD 30-APR-1992.
XX
PF 04-OCT-1991; 91WO-US07290.
XX
PR 05-OCT-1990; 90US-0594122.
PR 30-SEP-1991; 91US-0766351.
XX
PA (ATHE-) ATHENA NEUROSCIENCES INC.
PA (ELIL) LILLY & CO ELI.
XX
PI Dovey HF, Johnstone EM, Little SP, McConlogue L, Seubert PA;
PI Sinha S;
XX
DR WPI; 1992-167148/20.
XX
PT Human amyloidin protease - used for cleaving Met-Asp bond in
PT amyloid-like substrate for identifying protease inhibitors
XX
PS Claim 1; Page 52; 62pp; English.
XX
CC Claimed human amyloidin protease is defined by its ability to
CC cleave the Met-Asp bond of this synthetic substrate. The substrate,
CC which corresponds to residues 592 to 601 of the 695 amino acid APP,
CC can be used in an assay for identifying inhibitors of proteases
CC which cleave Met-Asp bonds, e.g. amyloidin, human skin chymase or
CC rat mast cell protease I or II.
CC See AAR24260-3, AAR24266-7 and AAQ24875-Q24887.
XX
SQ Sequence 10 AA;

Query Match 60.0%; Score 6; DB 13; Length 10;
Best Local Similarity 100.0%; Pred. No. 0.99;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 MDAEFR 6
||||||
Db 5 MDAEFR 10

Search completed: April 21, 2003, 12:10:00
Job time : 29.3333 secs

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OM protein - protein search, using sw model

Run on: April 21, 2003, 12:06:55 ; Search time 28.3333 Seconds
(without alignments)
47.030 Million cell updates/sec

Title: US-09-580-018-10
Perfect score: 10
Sequence: 1 AEFRHDSGYE 10

Scoring table: OLIGO
Gapop 60.0 , Gapext 60.0

Searched: 908470 seqs, 133250620 residues

Word size : 0

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Minimum DB seq length: 0
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Post-processing: Listing first 45 summaries

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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	10	100.0	10	22	AAB46214	Human APP derived
2	9	90.0	10	15	AAR58928	Human amyloid prec
3	9	90.0	10	22	AAB46213	Human APP derived
4	9	90.0	10	22	AAB46215	Human APP derived
5	8	80.0	10	22	AAB46212	Human APP derived
6	8	80.0	10	22	AAB46216	Human APP derived
7	7	70.0	8	23	AAU78518	N terminus of beta
8	7	70.0	10	22	AAB46211	Human APP derived
9	7	70.0	10	22	AAB46217	Human APP derived
10	6	60.0	7	22	AAB46202	Human APP A-beta p
11	6	60.0	7	23	AAO14421	Synthetic peptide
12	6	60.0	8	19	AAW70865	Beta-amyloid pepti
13	6	60.0	10	22	AAB46210	Human APP derived
14	6	60.0	10	22	AAB46218	Human APP derived
15	5	50.0	5	23	ABB05182	Beta amyloid pepti
16	5	50.0	6	19	AAW70868	Beta-amyloid pepti
17	5	50.0	6	23	AAU78501	Alpha secretase cl
18	5	50.0	10	21	AAY96712	Doubly phosphoryla
19	5	50.0	10	21	AAY96719	p-I-kappa-B-alpha
20	5	50.0	10	22	AAB46209	Human APP derived
21	5	50.0	10	22	AAB46219	Human APP derived
22	4	40.0	4	19	AAW70870	Beta-amyloid pepti
23	4	40.0	5	21	AAY51336	Sphingolipid desat
24	4	40.0	5	21	AAY69702	Beta-APP alpha-sec
25	4	40.0	5	22	AAE10667	Human APP-Sw mutan
26	4	40.0	5	22	AAE06907	Human Asp-2 beta-s
27	4	40.0	5	22	AAU06636	Peptide product of
28	4	40.0	5	22	AAU07235	Human beta-amyloid
29	4	40.0	6	14	AAR32016	LAMP-3 lysosome ta
30	4	40.0	6	19	AAW70864	Beta-amyloid pepti
31	4	40.0	6	21	AAB06998	Epitope pattern #
32	4	40.0	6	22	AAB47109	Epitope #1 used in
33	4	40.0	6	22	AAB46199	Human APP A-beta 1
34	4	40.0	6	22	AAB49095	Human amyloid beta
35	4	40.0	7	21	AAB07656	Peptide derived fr
36	4	40.0	7	21	AAB02941	Nucleotide-binding
37	4	40.0	8	18	AAW19494	Immunogen for rais
38	4	40.0	8	18	AAW19507	Immunogen for rais
39	4	40.0	8	20	AAY52751	Humanised ATR-5 H
40	4	40.0	9	21	AAY51340	Sphingolipid desat
41	4	40.0	9	22	AAU02736	CDR region of anti
42	4	40.0	9	22	AAU02741	CDR region of anti
43	4	40.0	9	23	ABB06519	Beta-secretase rel
44	4	40.0	10	11	AAR08279	Laminin receptor-b
45	4	40.0	10	13	AAR24262	Human amyloidin pr

ALIGNMENTS

RESULT 1
AAB46214
ID AAB46214 standard; peptide; 10 AA.
XX
AC AAB46214;
XX
DT 04-APR-2001 (first entry)
XX
DE Human APP derived immunogenic peptide #10.
XX
KW Amyloid deposit; APP; Abeta; brain; human; clearing response; nootropic;
KW Fc receptor mediated phagocytosis; immunogenic response; neuroprotective;
KW amyloid precursor protein; Alzheimer's disease.
XX
OS Homo sapiens.
XX
PN WO200072880-A2.
XX
PD 07-DEC-2000.
XX
PF 26-MAY-2000; 2000WO-US14810.
XX
PR 28-MAY-1999; 99US-0322289.
XX
PA (NEUR-) NEURALAB LTD.
XX
PI Schenk DB, Bard F, Vasquez NJ, Yednock T;
XX
DR WPI; 2001-032104/04.
XX
PT Preventing or treating a disease associated with amyloid deposits,
PT especially Alzheimer's disease, comprises administering amyloid
PT specific antibody -

XX
PS Disclosure; Figure 19; 143pp; English.
XX
CC This invention describes a novel method of preventing or treating a
CC disease associated with amyloid deposits of amyloid precursor protein
CC (APP) Abeta fragments in the brain of a patient, which comprises
CC administering to the patient: (a) an antibody that binds to Abeta, the
CC antibody binds to an amyloid deposit and induces a clearing response (Fc
CC receptor mediated phagocytosis) against it (b) a polypeptide containing
CC an N-terminal segment of at least residues 1-5 of Abeta; or (c) an agent
CC that induces an immunogenic response against residues 1-3 to 7-11 of
CC Abeta. The products of the invention have nootropic and neuroprotective
CC activity. The method is also useful for monitoring a course of treatment
CC being administered to a patient e.g. active and passive immunization. The
CC methods are useful for prophylactic and therapeutic treatment of
CC Alzheimer's disease.
XX
SQ Sequence 10 AA;

Query Match 100.0%; Score 10; DB 22; Length 10;
Best Local Similarity 100.0%; Pred. No. 3.6e-05;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 AEFRHDSGYE 10
||||||||||
Db 1 AEFRHDSGYE 10

RESULT 2
AAR58928
ID AAR58928 standard; peptide; 10 AA.
XX
AC AAR58928;
XX
DT 15-APR-1995 (first entry)
XX
DE Human amyloid precursor protein APP695 residues 597-606.
XX
KW Amyloid precursor protein; isoform APP 695; beta amyloid;
KW Alzheimer's disease.
XX
OS Homo sapiens.
XX
PN WO9419692-A.
XX
PD 01-SEP-1994.
XX
PF 17-FEB-1994; 94WO-US01712.
XX
PR 18-FEB-1993; 93US-0019208.
XX
PA (GEHO) GEN HOSPITAL CORP.
XX
PI Nishimoto I;
XX
DR WPI; 1994-294486/36.
XX
PT Identifying cpds. useful for treating or preventing Alzheimer's
PT disease - by determining whether it interferes with the
PT association of the couplone portion of amyloid precursor protein
PT to G polypeptide
XX
PS Disclosure; Page 33; 71pp; English.
XX
CC Beta amyloid is synthesised as part of a larger protein referred to
CC as amyloid precursor protein (APP), which has a number of isoforms
CC in humans, including APP695 and APP770. The amino terminal of beta
CC amyloid is generated by cleavage of a peptide bond of APP which in
CC APP695 lies between Met596 and Asp597. APP forms a complex with Go,
CC a GTP-binding protein (or "G protein") in brain. Go is made of one
CC alpha subunit and one Beta-gamma subunit. Two isoforms of Go, known
CC as Go1 (or GoA) and Go2 (or GoB) have been identified; they have
CC slight AA differences in their alpha subunits. The cDNA sequence and
CC deduced AA sequence of the alpha subunits in each of Go1 and Go2 are
CC shown in AAQ69002/R58914 and AAQ69004/R58924 respectively. The
CC cytoplasmic App695 sequence His657-Lys676 (AAR58913) possesses a
CC specific Go-activating function, and is necessary for complex
CC formation of this APP with Go. AAR58928 is another peptide of
CC APP695 which corresp. to AAs 597-606.
XX
SQ Sequence 10 AA;

Query Match 90.0%; Score 9; DB 15; Length 10;
Best Local Similarity 100.0%; Pred. No. 0.00049;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 AEFRHDSGY 9
|||||||||
Db 2 AEFRHDSGY 10

RESULT 3
AAB46213
ID AAB46213 standard; peptide; 10 AA.
XX
AC AAB46213;
XX
DT 04-APR-2001 (first entry)
XX
DE Human APP derived immunogenic peptide #9.
XX
KW Amyloid deposit; APP; Abeta; brain; human; clearing response; nootropic;
KW Fc receptor mediated phagocytosis; immunogenic response; neuroprotective;
KW amyloid precursor protein; Alzheimer's disease.
XX
OS Homo sapiens.
XX
PN WO200072880-A2.
XX
PD 07-DEC-2000.
XX
PF 26-MAY-2000; 2000WO-US14810.
XX
PR 28-MAY-1999; 99US-0322289.
XX
PA (NEUR-) NEURALAB LTD.
XX
PI Schenk DB, Bard F, Vasquez NJ, Yednock T;
XX
DR WPI; 2001-032104/04.
XX
PT Preventing or treating a disease associated with amyloid deposits,
PT especially Alzheimer's disease, comprises administering amyloid
PT specific antibody -
XX
PS Disclosure; Figure 19; 143pp; English.
XX
CC This invention describes a novel method of preventing or treating a
CC disease associated with amyloid deposits of amyloid precursor protein
CC (APP) Abeta fragments in the brain of a patient, which comprises
CC administering to the patient: (a) an antibody that binds to Abeta, the
CC antibody binds to an amyloid deposit and induces a clearing response (Fc
CC receptor mediated phagocytosis) against it (b) a polypeptide containing
CC an N-terminal segment of at least residues 1-5 of Abeta; or (c) an agent
CC that induces an immunogenic response against residues 1-3 to 7-11 of
CC Abeta. The products of the invention have nootropic and neuroprotective
CC activity. The method is also useful for monitoring a course of treatment
CC being administered to a patient e.g. active and passive immunization. The
CC methods are useful for prophylactic and therapeutic treatment of
CC Alzheimer's disease.
XX
SQ Sequence 10 AA;

Query Match 90.0%; Score 9; DB 22; Length 10;
Best Local Similarity 100.0%; Pred. No. 0.00049;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy      1 AEFRHDSGY 9
          |||||||||
Db      2 AEFRHDSGY 10


RESULT 4
AAB46215
ID   AAB46215 standard; peptide; 10 AA.
XX
AC   AAB46215;
XX
DT   04-APR-2001  (first entry)
XX
DE   Human APP derived immunogenic peptide #11.
XX
KW   Amyloid deposit; APP; Abeta; brain; human; clearing response; nootropic;
KW   Fc receptor mediated phagocytosis; immunogenic response; neuroprotective;
KW   amyloid precursor protein; Alzheimer's disease.
XX
OS   Homo sapiens.
XX
PN   WO200072880-A2.
XX
PD   07-DEC-2000.
XX
PF   26-MAY-2000; 2000WO-US14810.
XX
PR   28-MAY-1999;   99US-0322289.
XX
PA   (NEUR-) NEURALAB LTD.
XX
PI   Schenk DB,  Bard F,  Vasquez NJ,  Yednock T;
XX
DR   WPI; 2001-032104/04.
XX
PT   Preventing or treating a disease associated with amyloid deposits,
PT   especially Alzheimer's disease, comprises administering amyloid
PT   specific antibody  -
XX
PS   Disclosure; Figure 19; 143pp; English.
XX
CC   This invention describes a novel method of preventing or treating a
CC   disease associated with amyloid deposits of amyloid precursor protein
CC   (APP) Abeta fragments in the brain of a patient, which comprises
CC   administering to the patient: (a) an antibody that binds to Abeta, the
CC   antibody binds to an amyloid deposit and induces a clearing response (Fc
CC   receptor mediated phagocytosis) against it (b) a polypeptide containing
CC   an N-terminal segment of at least residues 1-5 of Abeta; or (c) an agent
CC   that induces an immunogenic response against residues 1-3 to 7-11 of
CC   Abeta. The products of the invention have nootropic and neuroprotective
CC   activity. The method is also useful for monitoring a course of treatment
CC   being administered to a patient e.g. active and passive immunization. The
CC   methods are useful for prophylactic and therapeutic treatment of
CC   Alzheimer's disease.
XX
SQ   Sequence   10 AA;

  Query Match             90.0%;  Score 9;  DB 22;  Length 10;
  Best Local Similarity   100.0%;  Pred. No. 0.00049;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      2 EFRHDSGYE 10
          |||||||||
Db      1 EFRHDSGYE 9


RESULT 5
AAB46212
ID   AAB46212 standard; peptide; 10 AA.
XX
AC   AAB46212;
XX
DT   04-APR-2001  (first entry)
XX
DE   Human APP derived immunogenic peptide #8.
XX
KW   Amyloid deposit; APP; Abeta; brain; human; clearing response; nootropic;
KW   Fc receptor mediated phagocytosis; immunogenic response; neuroprotective;
KW   amyloid precursor protein; Alzheimer's disease.
XX
OS   Homo sapiens.
XX
PN   WO200072880-A2.
XX
PD   07-DEC-2000.
XX
PF   26-MAY-2000; 2000WO-US14810.
XX
PR   28-MAY-1999;   99US-0322289.
XX
PA   (NEUR-) NEURALAB LTD.
XX
PI   Schenk DB,  Bard F,  Vasquez NJ,  Yednock T;
XX
DR   WPI; 2001-032104/04.
XX
PT   Preventing or treating a disease associated with amyloid deposits,
PT   especially Alzheimer's disease, comprises administering amyloid
PT   specific antibody  -
XX
PS   Disclosure; Figure 19; 143pp; English.
XX
CC   This invention describes a novel method of preventing or treating a
CC   disease associated with amyloid deposits of amyloid precursor protein
CC   (APP) Abeta fragments in the brain of a patient, which comprises
CC   administering to the patient: (a) an antibody that binds to Abeta, the
CC   antibody binds to an amyloid deposit and induces a clearing response (Fc
CC   receptor mediated phagocytosis) against it (b) a polypeptide containing
CC   an N-terminal segment of at least residues 1-5 of Abeta; or (c) an agent
CC   that induces an immunogenic response against residues 1-3 to 7-11 of
CC   Abeta. The products of the invention have nootropic and neuroprotective
CC   activity. The method is also useful for monitoring a course of treatment
CC   being administered to a patient e.g. active and passive immunization. The
CC   methods are useful for prophylactic and therapeutic treatment of
CC   Alzheimer's disease.
XX
SQ   Sequence   10 AA;

  Query Match             80.0%;  Score 8;  DB 22;  Length 10;
  Best Local Similarity   100.0%;  Pred. No. 0.0066;
  Matches    8;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 AEFRHDSG 8
          ||||||||
Db      3 AEFRHDSG 10


RESULT 6
AAB46216
ID   AAB46216 standard; peptide; 10 AA.
XX
AC   AAB46216;
XX
DT   04-APR-2001  (first entry)
XX
DE   Human APP derived immunogenic peptide #12.
XX
KW   Amyloid deposit; APP; Abeta; brain; human; clearing response; nootropic;
KW   Fc receptor mediated phagocytosis; immunogenic response; neuroprotective;
KW   amyloid precursor protein; Alzheimer's disease.
XX
OS   Homo sapiens.
XX
PN   WO200072880-A2.
XX
```

PD 07-DEC-2000.
XX
PF 26-MAY-2000; 2000WO-US14810.
XX
PR 28-MAY-1999; 99US-0322289.
XX
PA (NEUR-) NEURALAB LTD.
XX
PI Schenk DB, Bard F, Vasquez NJ, Yednock T;
XX
DR WPI; 2001-032104/04.
XX
PT Preventing or treating a disease associated with amyloid deposits,
PT especially Alzheimer's disease, comprises administering amyloid
PT specific antibody -
XX
PS Disclosure; Figure 19; 143pp; English.
XX
CC This invention describes a novel method of preventing or treating a
CC disease associated with amyloid deposits of amyloid precursor protein
CC (APP) Abeta fragments in the brain of a patient, which comprises
CC administering to the patient: (a) an antibody that binds to Abeta, the
CC antibody binds to an amyloid deposit and induces a clearing response (Fc
CC receptor mediated phagocytosis) against it (b) a polypeptide containing
CC an N-terminal segment of at least residues 1-5 of Abeta; or (c) an agent
CC that induces an immunogenic response against residues 1-3 to 7-11 of
CC Abeta. The products of the invention have nootropic and neuroprotective
CC activity. The method is also useful for monitoring a course of treatment
CC being administered to a patient e.g. active and passive immunization. The
CC methods are useful for prophylactic and therapeutic treatment of
CC Alzheimer's disease.
XX
SQ Sequence 10 AA;

Query Match 80.0%; Score 8; DB 22; Length 10;
Best Local Similarity 100.0%; Pred. No. 0.0066;
Matches 8; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 3 FRHDSGYE 10
||||||||
Db 1 FRHDSGYE 8

RESULT 7
AAU78518
ID AAU78518 standard; Peptide; 8 AA.
XX
AC AAU78518;
XX
DT 18-JUN-2002 (first entry)
XX
DE N terminus of beta amyloid.
XX
KW Alzheimer's disease; beta amyloid precursor protein; mouse;
KW BACE; beta-site APP cleaving enzyme; nootropic; neuroprotective;
KW beta-site amyloid precursor protein (APP)-cleaving enzyme; APP;
KW BACE secretase/sheddase; neurodegenerative disorder.
XX
OS Mus sp.
XX
PN WO200210354-A2.
XX
PD 07-FEB-2002.
XX
PF 01-AUG-2001; 2001WO-CA01118.
XX
PR 01-AUG-2000; 2000CA-2313828.
XX
PA (RECL-) INST RECH CLINIQUES MONTREAL.
XX
PI Seidah NG, Chretien M, Cromlish JA;
XX
DR WPI; 2002-280632/32.
XX
PT Modulating activity of beta-site amyloid precursor protein-cleaving
PT enzyme secretase/sheddase for treatment of neurodegenerative disorder
PT characterised by generation of Abeta protein, by preventing cleavage of
PT enzyme -
XX
PS Disclosure; Page 28; 64pp; English.
XX
CC This invention relates to a novel method for modulating activity of
CC beta-site amyloid precursor protein (APP)-cleaving enzyme (BACE)
CC secretase/sheddase. Cleavage of BACE by this enzyme results in the
CC generation of a soluble BACE which enhances the production of the
CC amyloidogenic peptide Abeta which has been shown to be involved in the
CC aetiology of Alzheimer's disease. Inhibition of BACE secretase can be
CC achieved by administration of an antisense nucleotide molecule capable
CC of hybridising with BACE mRNA, by using a ribozyme that targets and
CC degrades BACE secretase mRNA, with a peptide that can interfere with
CC binding of the enzyme with BACE or using an antibody or antagonist that
CC can function as an inhibitor of BACE secretase activation. The methods
CC of the invention modulate the activity of BACE secretase/sheddase by
CC preventing cleavage of BACE, which is useful for the treatment of a
CC neurodegenerative disorder characterised by the generation of Abeta
CC protein, especially Alzheimer's disease. The invention also comprises a
CC method for identification of an agent that can alter the ability of BACE
CC secretase to associate with and process a known substrate, this method
CC can be used for high throughput screening of candidate molecules. The
CC invention also comprises a method for determining whether an individual
CC is at risk of developing a neurodegenerative disorder characterised
CC by the generation of Abeta protein by measuring the levels of BACE
CC C terminal cleavage products in a sample or tissue where an increase
CC in cleavage products indicates a person at risk. The present sequence
CC represents the N terminal of a beta amyloid protein of the
CC invention.
XX
SQ Sequence 8 AA;

Query Match 70.0%; Score 7; DB 23; Length 8;
Best Local Similarity 100.0%; Pred. No. 7.8e+05;
Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 AEFRHDS 7
|||||||
Db 2 AEFRHDS 8

RESULT 8
AAB46211
ID AAB46211 standard; peptide; 10 AA.
XX
AC AAB46211;
XX
DT 04-APR-2001 (first entry)
XX
DE Human APP derived immunogenic peptide #7.
XX
KW Amyloid deposit; APP; Abeta; brain; human; clearing response; nootropic;
KW Fc receptor mediated phagocytosis; immunogenic response; neuroprotective;
KW amyloid precursor protein; Alzheimer's disease.
XX
OS Homo sapiens.
XX
PN WO200072880-A2.
XX
PD 07-DEC-2000.
XX
PF 26-MAY-2000; 2000WO-US14810.
XX
PR 28-MAY-1999; 99US-0322289.
XX
PA (NEUR-) NEURALAB LTD.
XX
PI Schenk DB, Bard F, Vasquez NJ, Yednock T;
XX

DR WPI; 2001-032104/04.
XX
PT Preventing or treating a disease associated with amyloid deposits,
PT especially Alzheimer's disease, comprises administering amyloid
PT specific antibody -
XX
PS Disclosure; Figure 19; 143pp; English.
XX
CC This invention describes a novel method of preventing or treating a
CC disease associated with amyloid deposits of amyloid precursor protein
CC (APP) Abeta fragments in the brain of a patient, which comprises
CC administering to the patient: (a) an antibody that binds to Abeta, the
CC antibody binds to an amyloid deposit and induces a clearing response (Fc
CC receptor mediated phagocytosis) against it (b) a polypeptide containing
CC an N-terminal segment of at least residues 1-5 of Abeta; or (c) an agent
CC that induces an immunogenic response against residues 1-3 to 7-11 of
CC Abeta. The products of the invention have nootropic and neuroprotective
CC activity. The method is also useful for monitoring a course of treatment
CC being administered to a patient e.g. active and passive immunization. The
CC methods are useful for prophylactic and therapeutic treatment of
CC Alzheimer's disease.
XX
SQ Sequence 10 AA;

Query Match 70.0%; Score 7; DB 22; Length 10;
Best Local Similarity 100.0%; Pred. No. 0.09;
Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 AEFRHDS 7
|||||||
Db 4 AEFRHDS 10

RESULT 9
AAB46217
ID AAB46217 standard; peptide; 10 AA.
XX
AC AAB46217;
XX
DT 04-APR-2001 (first entry)
XX
DE Human APP derived immunogenic peptide #13.
XX
KW Amyloid deposit; APP; Abeta; brain; human; clearing response; nootropic;
KW Fc receptor mediated phagocytosis; immunogenic response; neuroprotective;
KW amyloid precursor protein; Alzheimer's disease.
XX
OS Homo sapiens.
XX
PN WO200072880-A2.
XX
PD 07-DEC-2000.
XX
PF 26-MAY-2000; 2000WO-US14810.
XX
PR 28-MAY-1999; 99US-0322289.
XX
PA (NEUR-) NEURALAB LTD.
XX
PI Schenk DB, Bard F, Vasquez NJ, Yednock T;
XX
DR WPI; 2001-032104/04.
XX
PT Preventing or treating a disease associated with amyloid deposits,
PT especially Alzheimer's disease, comprises administering amyloid
PT specific antibody -
XX
PS Disclosure; Figure 19; 143pp; English.
XX
CC This invention describes a novel method of preventing or treating a
CC disease associated with amyloid deposits of amyloid precursor protein
CC (APP) Abeta fragments in the brain of a patient, which comprises
CC administering to the patient: (a) an antibody that binds to Abeta, the
CC antibody binds to an amyloid deposit and induces a clearing response (Fc
CC receptor mediated phagocytosis) against it (b) a polypeptide containing
CC an N-terminal segment of at least residues 1-5 of Abeta; or (c) an agent
CC that induces an immunogenic response against residues 1-3 to 7-11 of
CC Abeta. The products of the invention have nootropic and neuroprotective
CC activity. The method is also useful for monitoring a course of treatment
CC being administered to a patient e.g. active and passive immunization. The
CC methods are useful for prophylactic and therapeutic treatment of
CC Alzheimer's disease.
XX
SQ Sequence 10 AA;

Query Match 70.0%; Score 7; DB 22; Length 10;
Best Local Similarity 100.0%; Pred. No. 0.09;
Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 4 RHDSGYE 10
|||||||
Db 1 RHDSGYE 7

RESULT 10
AAB46202
ID AAB46202 standard; peptide; 7 AA.
XX
AC AAB46202;
XX
DT 04-APR-2001 (first entry)
XX
DE Human APP A-beta protein N-terminal fragment.
XX
KW Amyloid deposit; APP; Abeta; brain; human; clearing response; nootropic;
KW Fc receptor mediated phagocytosis; immunogenic response; neuroprotective;
KW amyloid precursor protein; Alzheimer's disease.
XX
OS Homo sapiens.
XX
PN WO200072880-A2.
XX
PD 07-DEC-2000.
XX
PF 26-MAY-2000; 2000WO-US14810.
XX
PR 28-MAY-1999; 99US-0322289.
XX
PA (NEUR-) NEURALAB LTD.
XX
PI Schenk DB, Bard F, Vasquez NJ, Yednock T;
XX
DR WPI; 2001-032104/04.
XX
PT Preventing or treating a disease associated with amyloid deposits,
PT especially Alzheimer's disease, comprises administering amyloid
PT specific antibody -
XX
PS Claim 59; Page 119; 143pp; English.
XX
CC This invention describes a novel method of preventing or treating a
CC disease associated with amyloid deposits of amyloid precursor protein
CC (APP) Abeta fragments in the brain of a patient, which comprises
CC administering to the patient: (a) an antibody that binds to Abeta, the
CC antibody binds to an amyloid deposit and induces a clearing response (Fc
CC receptor mediated phagocytosis) against it (b) a polypeptide containing
CC an N-terminal segment of at least residues 1-5 of Abeta; or (c) an agent
CC that induces an immunogenic response against residues 1-3 to 7-11 of
CC Abeta. The products of the invention have nootropic and neuroprotective
CC activity. The method is also useful for monitoring a course of treatment
CC being administered to a patient e.g. active and passive immunization. The
CC methods are useful for prophylactic and therapeutic treatment of
CC Alzheimer's disease.
XX
SQ Sequence 7 AA;

```
  Query Match             60.0%;  Score 6;  DB 22;  Length 7;
  Best Local Similarity   100.0%;  Pred. No. 7.8e+05;
  Matches    6;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 AEFRHD 6
          ||||||
Db      2 AEFRHD 7


RESULT 11
AAO14421
ID   AAO14421 standard; Peptide; 7 AA.
XX
AC   AAO14421;
XX
DT   02-MAY-2002  (first entry)
XX
DE   Synthetic peptide of A-Beta residues 1-7 (DAEFRHD).
XX
KW   Neurodegenerative disorder; Alzheimer's disease; AD; T714I; APP; APP714;
KW   amyloid precursor protein; amyloid Beta peptide; A-Beta; A-Beta40; brain;
KW   A-Beta42; plaque pathology; pre-amyloid; cerebral amyloid angiopathy;
KW   Dense-cored plaque; CAA; senile plaque core; amyloid cascade; murine;
KW   mouse; DAEFRHD; monoclonal antibody.
XX
OS   Mus sp.
OS   Synthetic.
XX
PN   WO200202769-A1.
XX
PD   10-JAN-2002.
XX
PF   06-JUL-2001; 2001WO-EP07830.
XX
PR   06-JUL-2000; 2000EP-0202362.
XX
PA   (VLAA-) VLAAMS INTERUNIVERSITAIR INST BIOTECHNOG.
XX
PI   Cruts M,  De Jonghe C,  Kumar Singh S,  Van Broeckhoven C;
XX
DR   WPI; 2002-154742/20.
XX
PT   Novel polynucleotide sequence encoding a mutant of amyloid precursor
PT   protein 70, useful for screening for a molecule capable of reducing the
PT   formation of beta amyloid 42 peptide  -
XX
PS   Disclosure; Page 21; 42pp; English.
XX
CC   The invention relates to the field of the neurodegenerative disorder of
CC   Alzheimer's disease (AD). In particular, the invention provides a novel
CC   mutation (T714I) identified in the amyloid precursor protein (APP),
CC   APP714, which leads to a very aggressive form of AD. The mutation
CC   involves the 43rd codon of the amyloid Beta peptide (A-Beta)
CC   corresponding to the putative gamma 42-secretase cleavage site. The
CC   novel mutation alters both A-Beta40 and A-Beta42 secretion elevating
CC   the A-Beta42/A-Beta40 ratio by 10-fold in vitro. Furthermore, the main
CC   amyloid plaque pathology in brains of these patients is of the diffuse
CC   'pre-amyloid' type composed primarily of N-truncated A-Beta42. Dense-
CC   cored plaques although not absent, were significantly reduced. Also, the
CC   usual sites in brain where A-Beta40 is predominantly deposited, for
CC   instance, in vessels as cerebral amyloid angiopathy (CAA) or senile
CC   plaque cores, were composed entirely of A-Beta42 form. Together, these
CC   indicate that deposition of N-truncated A-Beta42 in one of the earliest
CC   amyloid deposited in the brain, the diffuse plaques, is fully competent
CC   of inciting AD either through the well-established 'amyloid cascade' or
CC   by a yet unknown mechanism(s). This sequence represents a synthetic
CC   peptide of A-Beta, residues 1-7 (DAEFRHD). This sequence was used for
CC   raising a monoclonal antibody specific for the N-terminus of A-Beta40 and
CC   A-Beta42 by immunising mice with the synthetic peptide.
XX
SQ   Sequence   7 AA;

  Query Match             60.0%;  Score 6;  DB 23;  Length 7;
  Best Local Similarity   100.0%;  Pred. No. 7.8e+05;
  Matches    6;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 AEFRHD 6
          ||||||
Db      2 AEFRHD 7


RESULT 12
AAW70865
ID   AAW70865 standard; peptide; 8 AA.
XX
AC   AAW70865;
XX
DT   04-FEB-1999  (first entry)
XX
DE   Beta-amyloid peptide to create a monoclonal antibody.
XX
KW   Beta-amyloid precursor protein; beta-APP; beta-amyloid peptide;
KW   antibody; amyloid deposit; Alzheimer's disease.
XX
OS   Synthetic.
OS   Homo sapiens.
XX
PN   WO9844955-A1.
XX
PD   15-OCT-1998.
XX
PF   09-APR-1998;   98WO-US06900.
XX
PR   09-APR-1997;   97US-0041850.
XX
PA   (MCIN/) MCINNIS P A.
PA   (MIND-) MINDSET LTD.
XX
PI   Chain DG;
XX
DR   WPI; 1998-594476/50.
XX
PT   Preventing or inhibiting progression of Alzheimer's Disease -
PT   comprises use of recombinant DNA encoding an antibody specific for
PT   the N- or C-terminus of an amyloid-beta peptide
XX
PS   Example 1; Page 46; 58pp; English.
XX
CC   The present sequence represents a peptide derived from beta-amyloid
CC   precursor protein (beta-APP, see AAW70863). The peptide is a
CC   beta-amyloid peptide and is used to produce a monoclonal antibody
CC   designated antisenilin N1/7. The specification describes a method for
CC   prevention or inhibition of progression of Alzheimer's disease. The
CC   method comprises administering a composition comprising a recombinant DNA
CC   molecule containing a gene encoding a recombinant antibody end-specific
CC   for the N-terminus or the C-terminus of an amyloid-beta peptide, operably
CC   linked to a promoter which is expressed in the central nervous system.
CC   The recombinant antibody molecules prevent the accumulation of
CC   beta-amyloid peptides in the extracellular space, interstitial fluid and
CC   cerebrospinal fluid and the aggregation of such peptides into amyloid
CC   deposits in the brain. They also inhibit the progression of Alzheimer's
CC   disease by inhibiting the interaction of beta-amyloid peptides mediating
CC   Alzheimer's disease induced neurotoxicity and inhibiting the Alzheimer's
CC   disease induced complement activation and cytokine release involved in
CC   the inflammatory process.
XX
SQ   Sequence   8 AA;

  Query Match             60.0%;  Score 6;  DB 19;  Length 8;
  Best Local Similarity   100.0%;  Pred. No. 7.8e+05;
  Matches    6;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 AEFRHD 6
          ||||||
Db      2 AEFRHD 7
```

RESULT 13
AAB46210
ID AAB46210 standard; peptide; 10 AA.
XX
AC AAB46210;
XX
DT 04-APR-2001 (first entry)
XX
DE Human APP derived immunogenic peptide #6.
XX
KW Amyloid deposit; APP; Abeta; brain; human; clearing response; nootropic;
KW Fc receptor mediated phagocytosis; immunogenic response; neuroprotective;
KW amyloid precursor protein; Alzheimer's disease.
XX
OS Homo sapiens.
XX
PN WO200072880-A2.
XX
PD 07-DEC-2000.
XX
PF 26-MAY-2000; 2000WO-US14810.
XX
PR 28-MAY-1999; 99US-0322289.
XX
PA (NEUR-) NEURALAB LTD.
XX
PI Schenk DB, Bard F, Vasquez NJ, Yednock T;
XX
DR WPI; 2001-032104/04.
XX
PT Preventing or treating a disease associated with amyloid deposits,
PT especially Alzheimer's disease, comprises administering amyloid
PT specific antibody -
XX
PS Disclosure; Figure 19; 143pp; English.
XX
CC This invention describes a novel method of preventing or treating a
CC disease associated with amyloid deposits of amyloid precursor protein
CC (APP) Abeta fragments in the brain of a patient, which comprises
CC administering to the patient: (a) an antibody that binds to Abeta, the
CC antibody binds to an amyloid deposit and induces a clearing response (Fc
CC receptor mediated phagocytosis) against it (b) a polypeptide containing
CC an N-terminal segment of at least residues 1-5 of Abeta; or (c) an agent
CC that induces an immunogenic response against residues 1-3 to 7-11 of
CC Abeta. The products of the invention have nootropic and neuroprotective
CC activity. The method is also useful for monitoring a course of treatment
CC being administered to a patient e.g. active and passive immunization. The
CC methods are useful for prophylactic and therapeutic treatment of
CC Alzheimer's disease.
XX
SQ Sequence 10 AA;

Query Match 60.0%; Score 6; DB 22; Length 10;
Best Local Similarity 100.0%; Pred. No. 1.2;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 AEFRHD 6
||||||
Db 5 AEFRHD 10

RESULT 14
AAB46218
ID AAB46218 standard; peptide; 10 AA.
XX
AC AAB46218;
XX
DT 04-APR-2001 (first entry)
XX
DE Human APP derived immunogenic peptide #14.
XX
KW Amyloid deposit; APP; Abeta; brain; human; clearing response; nootropic;
KW Fc receptor mediated phagocytosis; immunogenic response; neuroprotective;
KW amyloid precursor protein; Alzheimer's disease.
XX
OS Homo sapiens.
XX
PN WO200072880-A2.
XX
PD 07-DEC-2000.
XX
PF 26-MAY-2000; 2000WO-US14810.
XX
PR 28-MAY-1999; 99US-0322289.
XX
PA (NEUR-) NEURALAB LTD.
XX
PI Schenk DB, Bard F, Vasquez NJ, Yednock T;
XX
DR WPI; 2001-032104/04.
XX
PT Preventing or treating a disease associated with amyloid deposits,
PT especially Alzheimer's disease, comprises administering amyloid
PT specific antibody -
XX
PS Disclosure; Figure 19; 143pp; English.
XX
CC This invention describes a novel method of preventing or treating a
CC disease associated with amyloid deposits of amyloid precursor protein
CC (APP) Abeta fragments in the brain of a patient, which comprises
CC administering to the patient: (a) an antibody that binds to Abeta, the
CC antibody binds to an amyloid deposit and induces a clearing response (Fc
CC receptor mediated phagocytosis) against it (b) a polypeptide containing
CC an N-terminal segment of at least residues 1-5 of Abeta; or (c) an agent
CC that induces an immunogenic response against residues 1-3 to 7-11 of
CC Abeta. The products of the invention have nootropic and neuroprotective
CC activity. The method is also useful for monitoring a course of treatment
CC being administered to a patient e.g. active and passive immunization. The
CC methods are useful for prophylactic and therapeutic treatment of
CC Alzheimer's disease.
XX
SQ Sequence 10 AA;

Query Match 60.0%; Score 6; DB 22; Length 10;
Best Local Similarity 100.0%; Pred. No. 1.2;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 5 HDSGYE 10
||||||
Db 1 HDSGYE 6

RESULT 15
ABB05182
ID ABB05182 standard; peptide; 5 AA.
XX
AC ABB05182;
XX
DT 02-APR-2002 (first entry)
XX
DE Beta amyloid peptide related peptide PPI-339 SEQ ID NO:36.
XX
KW Beta amyloid peptide; beta-AP; beta amyloid precursor protein; A-beta;
KW APP-770; amyloid aggregation; amyloidogenic; Alzheimer's disease;
KW nootropic; neuroprotective; immunosuppressive; antimicrobial; auditory;
KW antidiabetic; antipyretic; dermatological; cardiovascular; nephrotropic;
KW amyloid aggregation inhibitor; neurotoxicity inhibitor; Down's syndrome;
KW amyloidogenic disease; beta amyloid deposition; amyloidosis;
KW hereditary cerebral haemorrhage; familial amyloid polyneuropathy.
XX
OS Homo sapiens.
OS Synthetic.
XX
PN US6319498-B1.
XX

PD 20-NOV-2001.
XX
PF 14-MAR-1996; 96US-0617267.
XX
PR 14-MAR-1995; 95US-0404831.
PR 07-JUN-1995; 95US-0475579.
PR 27-OCT-1995; 95US-0548998.
XX
PA (PRAE-) PRAECIS PHARM INC.
XX
PI Findeis MA, Benjamin H, Garnick MB, Gefter ML, Hundal A, Kasman L;
PI Musso G, Signer ER, Wakefield J, Reed MJ;
XX
DR WPI; 2002-146668/19.
XX
PT Amyloid modulator compound useful for treatment of an amyloidogenic
PT disease such as Alzheimer's disease comprises an aggregation core
PT domain and a modifying group attached to it -
XX
PS Example 11; Column 63; 54pp; English.
XX
CC The present invention describes an amyloid modulator compound (I)
CC comprising an aggregation core domain and a modifying group attached to
CC it. (I) has nootropic, neuroprotective, immunosuppressive, antimicrobial,
CC antidiabetic, antipyretic, dermatological, cardiovascular, nephrotropic
CC and auditory activities, and can be used as a natural amyloid aggregation
CC inhibitor and a neurotoxicity inhibitor of natural beta amyloid peptide
CC (beta-AP). (I) are used in the manufacture of a medicament for the
CC diagnosis or treatment of an amyloidogenic disease e.g. Alzheimer's
CC disease and other clinical occurrences of beta amyloid deposition such as
CC Down's syndrome individuals and in patients with hereditary cerebral
CC haemorrhage with amyloidosis, and for treating a disorder associated with
CC amyloidosis such as familial amyloid polyneuropathy. (I) reduces the
CC toxicity of natural beta-AP aggregates to cultured neuronal cells. (I)
CC not only reduces the formation of neurotoxic aggregates but also have the
CC ability to reduce the neurotoxicity of performed A-beta fibrils. The
CC present sequence represents a peptide which is used in the
CC exemplification of the present invention.
XX
SQ Sequence 5 AA;

Query Match 50.0%; Score 5; DB 23; Length 5;
Best Local Similarity 100.0%; Pred. No. 7.8e+05;
Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy      5 HDSGY 9
          |||||
Db      1 HDSGY 5
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OM protein - protein search, using sw model

Run on: April 21, 2003, 12:06:55 ; Search time 28.3333 Seconds
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Perfect score: 10
Sequence: 1 DAEFRHDSGY 10

Scoring table: OLIGO
Gapop 60.0 , Gapext 60.0

Searched: 908470 seqs, 133250620 residues

Word size : 0

Total number of hits satisfying chosen parameters: 174064

Minimum DB seq length: 0
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Post-processing: Listing first 45 summaries

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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	10	100.0	10	15	AAR58928	Human amyloid prec
2	10	100.0	10	22	AAB46213	Human APP derived
3	9	90.0	10	22	AAB46212	Human APP derived
4	9	90.0	10	22	AAB46214	Human APP derived
5	8	80.0	8	23	AAU78518	N terminus of beta
6	8	80.0	10	22	AAB46211	Human APP derived
7	8	80.0	10	22	AAB46215	Human APP derived
8	7	70.0	7	22	AAB46202	Human APP A-beta p
9	7	70.0	7	23	AAO14421	Synthetic peptide
10	7	70.0	8	19	AAW70865	Beta-amyloid pepti
11	7	70.0	10	22	AAB46210	Human APP derived
12	7	70.0	10	22	AAB46216	Human APP derived
13	6	60.0	6	19	AAW70868	Beta-amyloid pepti
14	6	60.0	10	22	AAB46209	Human APP derived
15	6	60.0	10	22	AAB46217	Human APP derived
16	5	50.0	5	21	AAY69702	Beta-APP alpha-sec
17	5	50.0	5	22	AAE10667	Human APP-Sw mutan
18	5	50.0	5	22	AAE06907	Human Asp-2 beta-s
19	5	50.0	5	22	AAU06636	Peptide product of
20	5	50.0	5	22	AAU07235	Human beta-amyloid
21	5	50.0	5	23	ABB05182	Beta amyloid pepti
22	5	50.0	6	19	AAW70864	Beta-amyloid pepti
23	5	50.0	6	22	AAB46199	Human APP A-beta 1
24	5	50.0	6	22	AAB49095	Human amyloid beta
25	5	50.0	8	18	AAW19494	Immunogen for rais
26	5	50.0	8	18	AAW19507	Immunogen for rais
27	5	50.0	9	23	ABB06519	Beta-secretase rel
28	5	50.0	10	13	AAR24262	Human amyloidin pr
29	5	50.0	10	13	AAR24260	Human amyloidin pr
30	5	50.0	10	13	AAR24261	Human amyloidin pr
31	5	50.0	10	13	AAR24263	Human amyloidin pr
32	5	50.0	10	13	AAR24267	Human amyloidin pr
33	5	50.0	10	18	AAW08362	Beta-secretase sub
34	5	50.0	10	20	AAY33756	Synthetic oligopep
35	5	50.0	10	21	AAY96712	Doubly phosphoryla
36	5	50.0	10	21	AAY96719	p-I-kappa-B-alpha
37	5	50.0	10	21	AAY69703	Beta-APP alpha-sec
38	5	50.0	10	21	AAY69704	Beta-APP alpha-sec
39	5	50.0	10	21	AAY69705	Beta-APP alpha-sec
40	5	50.0	10	21	AAY69706	Beta-APP alpha-sec
41	5	50.0	10	21	AAY69707	Beta-APP alpha-sec
42	5	50.0	10	21	AAY69708	Beta-APP alpha-sec
43	5	50.0	10	21	AAY69709	Beta-APP alpha-sec
44	5	50.0	10	21	AAY69710	Beta-APP alpha-sec
45	5	50.0	10	22	AAE10653	Human APP-Sw beta-

ALIGNMENTS

RESULT 1
AAR58928
ID AAR58928 standard; peptide; 10 AA.
XX
AC AAR58928;
XX
DT 15-APR-1995 (first entry)
XX
DE Human amyloid precursor protein APP695 residues 597-606.
XX
KW Amyloid precursor protein; isoform APP 695; beta amyloid;
KW Alzheimer's disease.
XX
OS Homo sapiens.
XX
PN WO9419692-A.
XX
PD 01-SEP-1994.
XX
PF 17-FEB-1994; 94WO-US01712.
XX
PR 18-FEB-1993; 93US-0019208.
XX
PA (GEHO) GEN HOSPITAL CORP.
XX
PI Nishimoto I;
XX
DR WPI; 1994-294486/36.
XX
PT Identifying cpds. useful for treating or preventing Alzheimer's
PT disease - by determining whether it interferes with the
PT association of the couplone portion of amyloid precursor protein
PT to G polypeptide

XX
PS Disclosure; Page 33; 71pp; English.
XX
CC Beta amyloid is synthesised as part of a larger protein referred to
CC as amyloid precursor protein (APP), which has a number of isoforms
CC in humans, including APP695 and APP770. The amino terminal of beta
CC amyloid is generated by cleavage of a peptide bond of APP which in
CC APP695 lies between Met596 and Asp597. APP forms a complex with Go,
CC a GTP-binding protein (or "G protein") in brain. Go is made of one
CC alpha subunit and one Beta-gamma subunit. Two isoforms of Go, known
CC as Go1 (or GoA) and Go2 (or GoB) have been identified; they have
CC slight AA differences in their alpha subunits. The cDNA sequence and
CC deduced AA sequence of the alpha subunits in each of Go1 and Go2 are
CC shown in AAQ69002/R58914 and AAQ69004/R58924 respectively. The
CC cytoplasmic App695 sequence His657-Lys676 (AAR58913) possesses a
CC specific Go-activating function, and is necessary for complex
CC formation of this APP with Go. AAR58928 is another peptide of
CC APP695 which corresp. to AAs 597-606.
XX
SQ Sequence 10 AA;

Query Match 100.0%; Score 10; DB 15; Length 10;
Best Local Similarity 100.0%; Pred. No. 3.5e-05;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 DAEFRHDSGY 10
||||||||||
Db 1 DAEFRHDSGY 10

RESULT 2
AAB46213
ID AAB46213 standard; peptide; 10 AA.
XX
AC AAB46213;
XX
DT 04-APR-2001 (first entry)
XX
DE Human APP derived immunogenic peptide #9.
XX
KW Amyloid deposit; APP; Abeta; brain; human; clearing response; nootropic;
KW Fc receptor mediated phagocytosis; immunogenic response; neuroprotective;
KW amyloid precursor protein; Alzheimer's disease.
XX
OS Homo sapiens.
XX
PN WO200072880-A2.
XX
PD 07-DEC-2000.
XX
PF 26-MAY-2000; 2000WO-US14810.
XX
PR 28-MAY-1999; 99US-0322289.
XX
PA (NEUR-) NEURALAB LTD.
XX
PI Schenk DB, Bard F, Vasquez NJ, Yednock T;
XX
DR WPI; 2001-032104/04.
XX
PT Preventing or treating a disease associated with amyloid deposits,
PT especially Alzheimer's disease, comprises administering amyloid
PT specific antibody -
XX
PS Disclosure; Figure 19; 143pp; English.
XX
CC This invention describes a novel method of preventing or treating a
CC disease associated with amyloid deposits of amyloid precursor protein
CC (APP) Abeta fragments in the brain of a patient, which comprises
CC administering to the patient: (a) an antibody that binds to Abeta, the
CC antibody binds to an amyloid deposit and induces a clearing response (Fc
CC receptor mediated phagocytosis) against it (b) a polypeptide containing
CC an N-terminal segment of at least residues 1-5 of Abeta; or (c) an agent
CC that induces an immunogenic response against residues 1-3 to 7-11 of
CC Abeta. The products of the invention have nootropic and neuroprotective
CC activity. The method is also useful for monitoring a course of treatment
CC being administered to a patient e.g. active and passive immunization. The
CC methods are useful for prophylactic and therapeutic treatment of
CC Alzheimer's disease.
XX
SQ Sequence 10 AA;

Query Match 100.0%; Score 10; DB 22; Length 10;
Best Local Similarity 100.0%; Pred. No. 3.5e-05;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 DAEFRHDSGY 10
||||||||||
Db 1 DAEFRHDSGY 10

RESULT 3
AAB46212
ID AAB46212 standard; peptide; 10 AA.
XX
AC AAB46212;
XX
DT 04-APR-2001 (first entry)
XX
DE Human APP derived immunogenic peptide #8.
XX
KW Amyloid deposit; APP; Abeta; brain; human; clearing response; nootropic;
KW Fc receptor mediated phagocytosis; immunogenic response; neuroprotective;
KW amyloid precursor protein; Alzheimer's disease.
XX
OS Homo sapiens.
XX
PN WO200072880-A2.
XX
PD 07-DEC-2000.
XX
PF 26-MAY-2000; 2000WO-US14810.
XX
PR 28-MAY-1999; 99US-0322289.
XX
PA (NEUR-) NEURALAB LTD.
XX
PI Schenk DB, Bard F, Vasquez NJ, Yednock T;
XX
DR WPI; 2001-032104/04.
XX
PT Preventing or treating a disease associated with amyloid deposits,
PT especially Alzheimer's disease, comprises administering amyloid
PT specific antibody -
XX
PS Disclosure; Figure 19; 143pp; English.
XX
CC This invention describes a novel method of preventing or treating a
CC disease associated with amyloid deposits of amyloid precursor protein
CC (APP) Abeta fragments in the brain of a patient, which comprises
CC administering to the patient: (a) an antibody that binds to Abeta, the
CC antibody binds to an amyloid deposit and induces a clearing response (Fc
CC receptor mediated phagocytosis) against it (b) a polypeptide containing
CC an N-terminal segment of at least residues 1-5 of Abeta; or (c) an agent
CC that induces an immunogenic response against residues 1-3 to 7-11 of
CC Abeta. The products of the invention have nootropic and neuroprotective
CC activity. The method is also useful for monitoring a course of treatment
CC being administered to a patient e.g. active and passive immunization. The
CC methods are useful for prophylactic and therapeutic treatment of
CC Alzheimer's disease.
XX
SQ Sequence 10 AA;

Query Match 90.0%; Score 9; DB 22; Length 10;
Best Local Similarity 100.0%; Pred. No. 0.00048;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy      1 DAEFRHDSG 9
          |||||||||
Db      2 DAEFRHDSG 10


RESULT 4
AAB46214
ID   AAB46214 standard; peptide; 10 AA.
XX
AC   AAB46214;
XX
DT   04-APR-2001  (first entry)
XX
DE   Human APP derived immunogenic peptide #10.
XX
KW   Amyloid deposit; APP; Abeta; brain; human; clearing response; nootropic;
KW   Fc receptor mediated phagocytosis; immunogenic response; neuroprotective;
KW   amyloid precursor protein; Alzheimer's disease.
XX
OS   Homo sapiens.
XX
PN   WO200072880-A2.
XX
PD   07-DEC-2000.
XX
PF   26-MAY-2000; 2000WO-US14810.
XX
PR   28-MAY-1999;   99US-0322289.
XX
PA   (NEUR-) NEURALAB LTD.
XX
PI   Schenk DB,  Bard F,  Vasquez NJ,  Yednock T;
XX
DR   WPI; 2001-032104/04.
XX
PT   Preventing or treating a disease associated with amyloid deposits,
PT   especially Alzheimer's disease, comprises administering amyloid
PT   specific antibody  -
XX
PS   Disclosure; Figure 19; 143pp; English.
XX
CC   This invention describes a novel method of preventing or treating a
CC   disease associated with amyloid deposits of amyloid precursor protein
CC   (APP) Abeta fragments in the brain of a patient, which comprises
CC   administering to the patient: (a) an antibody that binds to Abeta, the
CC   antibody binds to an amyloid deposit and induces a clearing response (Fc
CC   receptor mediated phagocytosis) against it (b) a polypeptide containing
CC   an N-terminal segment of at least residues 1-5 of Abeta; or (c) an agent
CC   that induces an immunogenic response against residues 1-3 to 7-11 of
CC   Abeta. The products of the invention have nootropic and neuroprotective
CC   activity. The method is also useful for monitoring a course of treatment
CC   being administered to a patient e.g. active and passive immunization. The
CC   methods are useful for prophylactic and therapeutic treatment of
CC   Alzheimer's disease.
XX
SQ   Sequence   10 AA;

  Query Match             90.0%;  Score 9;  DB 22;  Length 10;
  Best Local Similarity   100.0%;  Pred. No. 0.00048;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      2 AEFRHDSGY 10
          |||||||||
Db      1 AEFRHDSGY 9


RESULT 5
AAU78518
ID   AAU78518 standard; Peptide; 8 AA.
XX
AC   AAU78518;
XX
DT   18-JUN-2002  (first entry)
XX
DE   N terminus of beta amyloid.
XX
KW   Alzheimer's disease; beta amyloid precursor protein; mouse;
KW   BACE; beta-site APP cleaving enzyme; nootropic; neuroprotective;
KW   beta-site amyloid precursor protein (APP)-cleaving enzyme; APP;
KW   BACE secretase/sheddase; neurodegenerative disorder.
XX
OS   Mus sp.
XX
PN   WO200210354-A2.
XX
PD   07-FEB-2002.
XX
PF   01-AUG-2001; 2001WO-CA01118.
XX
PR   01-AUG-2000; 2000CA-2313828.
XX
PA   (RECL-) INST RECH CLINIQUES MONTREAL.
XX
PI   Seidah NG,  Chretien M,  Cromlish JA;
XX
DR   WPI; 2002-280632/32.
XX
PT   Modulating activity of beta-site amyloid precursor protein-cleaving
PT   enzyme secretase/sheddase for treatment of neurodegenerative disorder
PT   characterised by generation of Abeta protein, by preventing cleavage of
PT   enzyme  -
XX
PS   Disclosure; Page 28; 64pp; English.
XX
CC   This invention relates to a novel method for modulating activity of
CC   beta-site amyloid precursor protein (APP)-cleaving enzyme (BACE)
CC   secretase/sheddase. Cleavage of BACE by this enzyme results in the
CC   generation of a soluble BACE which enhances the production of the
CC   amyloidogenic peptide Abeta which has been shown to be involved in the
CC   aetiology of Alzheimer's disease. Inhibition of BACE secretase can be
CC   achieved by administration of an antisense nucleotide molecule capable
CC   of hybridising with BACE mRNA, by using a ribozyme that targets and
CC   degrades BACE secretase mRNA, with a peptide that can interfere with
CC   binding of the enzyme with BACE or using an antibody or antagonist that
CC   can function as an inhibitor of BACE secretase activation. The methods
CC   of the invention modulate the activity of BACE secretase/sheddase by
CC   preventing cleavage of BACE, which is useful for the treatment of a
CC   neurodegenerative disorder characterised by the generation of Abeta
CC   protein, especially Alzheimer's disease. The invention also comprises a
CC   method for identification of an agent that can alter the ability of BACE
CC   secretase to associate with and process a known substrate, this method
CC   can be used for high throughput screening of candidate molecules. The
CC   invention also comprises a method for determining whether an individual
CC   is at risk of developing a neurodegenerative disorder characterised
CC   by the generation of Abeta protein by measuring the levels of BACE
CC   C terminal cleavage products in a sample or tissue where an increase
CC   in cleavage products indicates a person at risk. The present sequence
CC   represents the N terminal of a beta amyloid protein of the
CC   invention.
XX
SQ   Sequence   8 AA;

  Query Match             80.0%;  Score 8;  DB 23;  Length 8;
  Best Local Similarity   100.0%;  Pred. No. 7.8e+05;
  Matches    8;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 DAEFRHDS 8
          ||||||||
Db      1 DAEFRHDS 8


RESULT 6
AAB46211
ID   AAB46211 standard; peptide; 10 AA.
XX
```

```
AC   AAB46211;
XX
DT   04-APR-2001  (first entry)
XX
DE   Human APP derived immunogenic peptide #7.
XX
KW   Amyloid deposit; APP; Abeta; brain; human; clearing response; nootropic;
KW   Fc receptor mediated phagocytosis; immunogenic response; neuroprotective;
KW   amyloid precursor protein; Alzheimer's disease.
XX
OS   Homo sapiens.
XX
PN   WO200072880-A2.
XX
PD   07-DEC-2000.
XX
PF   26-MAY-2000; 2000WO-US14810.
XX
PR   28-MAY-1999;   99US-0322289.
XX
PA   (NEUR-) NEURALAB LTD.
XX
PI   Schenk DB,  Bard F,  Vasquez NJ,  Yednock T;
XX
DR   WPI; 2001-032104/04.
XX
PT   Preventing or treating a disease associated with amyloid deposits,
PT   especially Alzheimer's disease, comprises administering amyloid
PT   specific antibody  -
XX
PS   Disclosure; Figure 19; 143pp; English.
XX
CC   This invention describes a novel method of preventing or treating a
CC   disease associated with amyloid deposits of amyloid precursor protein
CC   (APP) Abeta fragments in the brain of a patient, which comprises
CC   administering to the patient: (a) an antibody that binds to Abeta, the
CC   antibody binds to an amyloid deposit and induces a clearing response (Fc
CC   receptor mediated phagocytosis) against it (b) a polypeptide containing
CC   an N-terminal segment of at least residues 1-5 of Abeta; or (c) an agent
CC   that induces an immunogenic response against residues 1-3 to 7-11 of
CC   Abeta. The products of the invention have nootropic and neuroprotective
CC   activity. The method is also useful for monitoring a course of treatment
CC   being administered to a patient e.g. active and passive immunization. The
CC   methods are useful for prophylactic and therapeutic treatment of
CC   Alzheimer's disease.
XX
SQ   Sequence   10 AA;

  Query Match             80.0%;  Score 8;  DB 22;  Length 10;
  Best Local Similarity   100.0%;  Pred. No. 0.0066;
  Matches    8;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 DAEFRHDS 8
           ||||||||
Db       3 DAEFRHDS 10


RESULT 7
AAB46215
ID   AAB46215 standard; peptide; 10 AA.
XX
AC   AAB46215;
XX
DT   04-APR-2001  (first entry)
XX
DE   Human APP derived immunogenic peptide #11.
XX
KW   Amyloid deposit; APP; Abeta; brain; human; clearing response; nootropic;
KW   Fc receptor mediated phagocytosis; immunogenic response; neuroprotective;
KW   amyloid precursor protein; Alzheimer's disease.
XX
OS   Homo sapiens.
XX
PN   WO200072880-A2.
XX
PD   07-DEC-2000.
XX
PF   26-MAY-2000; 2000WO-US14810.
XX
PR   28-MAY-1999;   99US-0322289.
XX
PA   (NEUR-) NEURALAB LTD.
XX
PI   Schenk DB,  Bard F,  Vasquez NJ,  Yednock T;
XX
DR   WPI; 2001-032104/04.
XX
PT   Preventing or treating a disease associated with amyloid deposits,
PT   especially Alzheimer's disease, comprises administering amyloid
PT   specific antibody  -
XX
PS   Disclosure; Figure 19; 143pp; English.
XX
CC   This invention describes a novel method of preventing or treating a
CC   disease associated with amyloid deposits of amyloid precursor protein
CC   (APP) Abeta fragments in the brain of a patient, which comprises
CC   administering to the patient: (a) an antibody that binds to Abeta, the
CC   antibody binds to an amyloid deposit and induces a clearing response (Fc
CC   receptor mediated phagocytosis) against it (b) a polypeptide containing
CC   an N-terminal segment of at least residues 1-5 of Abeta; or (c) an agent
CC   that induces an immunogenic response against residues 1-3 to 7-11 of
CC   Abeta. The products of the invention have nootropic and neuroprotective
CC   activity. The method is also useful for monitoring a course of treatment
CC   being administered to a patient e.g. active and passive immunization. The
CC   methods are useful for prophylactic and therapeutic treatment of
CC   Alzheimer's disease.
XX
SQ   Sequence   10 AA;

  Query Match             80.0%;  Score 8;  DB 22;  Length 10;
  Best Local Similarity   100.0%;  Pred. No. 0.0066;
  Matches    8;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       3 EFRHDSGY 10
           ||||||||
Db       1 EFRHDSGY 8


RESULT 8
AAB46202
ID   AAB46202 standard; peptide; 7 AA.
XX
AC   AAB46202;
XX
DT   04-APR-2001  (first entry)
XX
DE   Human APP A-beta protein N-terminal fragment.
XX
KW   Amyloid deposit; APP; Abeta; brain; human; clearing response; nootropic;
KW   Fc receptor mediated phagocytosis; immunogenic response; neuroprotective;
KW   amyloid precursor protein; Alzheimer's disease.
XX
OS   Homo sapiens.
XX
PN   WO200072880-A2.
XX
PD   07-DEC-2000.
XX
PF   26-MAY-2000; 2000WO-US14810.
XX
PR   28-MAY-1999;   99US-0322289.
XX
PA   (NEUR-) NEURALAB LTD.
XX
PI   Schenk DB,  Bard F,  Vasquez NJ,  Yednock T;
XX
```

DR WPI; 2001-032104/04.
XX
PT Preventing or treating a disease associated with amyloid deposits,
PT especially Alzheimer's disease, comprises administering amyloid
PT specific antibody -
XX
PS Claim 59; Page 119; 143pp; English.
XX
CC This invention describes a novel method of preventing or treating a
CC disease associated with amyloid deposits of amyloid precursor protein
CC (APP) Abeta fragments in the brain of a patient, which comprises
CC administering to the patient: (a) an antibody that binds to Abeta, the
CC antibody binds to an amyloid deposit and induces a clearing response (Fc
CC receptor mediated phagocytosis) against it (b) a polypeptide containing
CC an N-terminal segment of at least residues 1-5 of Abeta; or (c) an agent
CC that induces an immunogenic response against residues 1-3 to 7-11 of
CC Abeta. The products of the invention have nootropic and neuroprotective
CC activity. The method is also useful for monitoring a course of treatment
CC being administered to a patient e.g. active and passive immunization. The
CC methods are useful for prophylactic and therapeutic treatment of
CC Alzheimer's disease.
XX
SQ Sequence 7 AA;

Query Match 70.0%; Score 7; DB 22; Length 7;
Best Local Similarity 100.0%; Pred. No. 7.8e+05;
Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 DAEFRHD 7
|||||||
Db 1 DAEFRHD 7

RESULT 9
AAO14421
ID AAO14421 standard; Peptide; 7 AA.
XX
AC AAO14421;
XX
DT 02-MAY-2002 (first entry)
XX
DE Synthetic peptide of A-Beta residues 1-7 (DAEFRHD).
XX
KW Neurodegenerative disorder; Alzheimer's disease; AD; T714I; APP; APP714;
KW amyloid precursor protein; amyloid Beta peptide; A-Beta; A-Beta40; brain;
KW A-Beta42; plaque pathology; pre-amyloid; cerebral amyloid angiopathy;
KW Dense-cored plaque; CAA; senile plaque core; amyloid cascade; murine;
KW mouse; DAEFRHD; monoclonal antibody.
XX
OS Mus sp.
OS Synthetic.
XX
PN WO200202769-A1.
XX
PD 10-JAN-2002.
XX
PF 06-JUL-2001; 2001WO-EP07830.
XX
PR 06-JUL-2000; 2000EP-0202362.
XX
PA (VLAA-) VLAAMS INTERUNIVERSITAIR INST BIOTECHNOG.
XX
PI Cruts M, De Jonghe C, Kumar Singh S, Van Broeckhoven C;
XX
DR WPI; 2002-154742/20.
XX
PT Novel polynucleotide sequence encoding a mutant of amyloid precursor
PT protein 70, useful for screening for a molecule capable of reducing the
PT formation of beta amyloid 42 peptide -
XX
PS Disclosure; Page 21; 42pp; English.
XX
CC The invention relates to the field of the neurodegenerative disorder of
CC Alzheimer's disease (AD). In particular, the invention provides a novel
CC mutation (T714I) identified in the amyloid precursor protein (APP),
CC APP714, which leads to a very aggressive form of AD. The mutation
CC involves the 43rd codon of the amyloid Beta peptide (A-Beta)
CC corresponding to the putative gamma 42-secretase cleavage site. The
CC novel mutation alters both A-Beta40 and A-Beta42 secretion elevating
CC the A-Beta42/A-Beta40 ratio by 10-fold in vitro. Furthermore, the main
CC amyloid plaque pathology in brains of these patients is of the diffuse
CC 'pre-amyloid' type composed primarily of N-truncated A-Beta42. Dense-
CC cored plaques although not absent, were significantly reduced. Also, the
CC usual sites in brain where A-Beta40 is predominantly deposited, for
CC instance, in vessels as cerebral amyloid angiopathy (CAA) or senile
CC plaque cores, were composed entirely of A-Beta42 form. Together, these
CC indicate that deposition of N-truncated A-Beta42 in one of the earliest
CC amyloid deposited in the brain, the diffuse plaques, is fully competent
CC of inciting AD either through the well-established 'amyloid cascade' or
CC by a yet unknown mechanism(s). This sequence represents a synthetic
CC peptide of A-Beta, residues 1-7 (DAEFRHD). This sequence was used for
CC raising a monoclonal antibody specific for the N-terminus of A-Beta40 and
CC A-Beta42 by immunising mice with the synthetic peptide.
XX
SQ Sequence 7 AA;

Query Match 70.0%; Score 7; DB 23; Length 7;
Best Local Similarity 100.0%; Pred. No. 7.8e+05;
Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 DAEFRHD 7
|||||||
Db 1 DAEFRHD 7

RESULT 10
AAW70865
ID AAW70865 standard; peptide; 8 AA.
XX
AC AAW70865;
XX
DT 04-FEB-1999 (first entry)
XX
DE Beta-amyloid peptide to create a monoclonal antibody.
XX
KW Beta-amyloid precursor protein; beta-APP; beta-amyloid peptide;
KW antibody; amyloid deposit; Alzheimer's disease.
XX
OS Synthetic.
OS Homo sapiens.
XX
PN WO9844955-A1.
XX
PD 15-OCT-1998.
XX
PF 09-APR-1998; 98WO-US06900.
XX
PR 09-APR-1997; 97US-0041850.
XX
PA (MCIN/) MCINNIS P A.
PA (MIND-) MINDSET LTD.
XX
PI Chain DG;
XX
DR WPI; 1998-594476/50.
XX
PT Preventing or inhibiting progression of Alzheimer's Disease -
PT comprises use of recombinant DNA encoding an antibody specific for
PT the N- or C-terminus of an amyloid-beta peptide
XX
PS Example 1; Page 46; 58pp; English.
XX
CC The present sequence represents a peptide derived from beta-amyloid
CC precursor protein (beta-APP, see AAW70863). The peptide is a
CC beta-amyloid peptide and is used to produce a monoclonal antibody
CC designated antisenilin N1/7. The specification describes a method for

CC prevention or inhibition of progression of Alzheimer's disease. The
CC method comprises administering a composition comprising a recombinant DNA
CC molecule containing a gene encoding a recombinant antibody end-specific
CC for the N-terminus or the C-terminus of an amyloid-beta peptide, operably
CC linked to a promoter which is expressed in the central nervous system.
CC The recombinant antibody molecules prevent the accumulation of
CC beta-amyloid peptides in the extracellular space, interstitial fluid and
CC cerebrospinal fluid and the aggregation of such peptides into amyloid
CC deposits in the brain. They also inhibit the progression of Alzheimer's
CC disease by inhibiting the interaction of beta-amyloid peptides mediating
CC Alzheimer's disease induced neurotoxicity and inhibiting the Alzheimer's
CC disease induced complement activation and cytokine release involved in
CC the inflammatory process.
XX
SQ Sequence 8 AA;

Query Match 70.0%; Score 7; DB 19; Length 8;
Best Local Similarity 100.0%; Pred. No. 7.8e+05;
Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 DAEFRHD 7
|||||||
Db 1 DAEFRHD 7

RESULT 11
AAB46210
ID AAB46210 standard; peptide; 10 AA.
XX
AC AAB46210;
XX
DT 04-APR-2001 (first entry)
XX
DE Human APP derived immunogenic peptide #6.
XX
KW Amyloid deposit; APP; Abeta; brain; human; clearing response; nootropic;
KW Fc receptor mediated phagocytosis; immunogenic response; neuroprotective;
KW amyloid precursor protein; Alzheimer's disease.
XX
OS Homo sapiens.
XX
PN WO200072880-A2.
XX
PD 07-DEC-2000.
XX
PF 26-MAY-2000; 2000WO-US14810.
XX
PR 28-MAY-1999; 99US-0322289.
XX
PA (NEUR-) NEURALAB LTD.
XX
PI Schenk DB, Bard F, Vasquez NJ, Yednock T;
XX
DR WPI; 2001-032104/04.
XX
PT Preventing or treating a disease associated with amyloid deposits,
PT especially Alzheimer's disease, comprises administering amyloid
PT specific antibody -
XX
PS Disclosure; Figure 19; 143pp; English.
XX
CC This invention describes a novel method of preventing or treating a
CC disease associated with amyloid deposits of amyloid precursor protein
CC (APP) Abeta fragments in the brain of a patient, which comprises
CC administering to the patient: (a) an antibody that binds to Abeta, the
CC antibody binds to an amyloid deposit and induces a clearing response (Fc
CC receptor mediated phagocytosis) against it (b) a polypeptide containing
CC an N-terminal segment of at least residues 1-5 of Abeta; or (c) an agent
CC that induces an immunogenic response against residues 1-3 to 7-11 of
CC Abeta. The products of the invention have nootropic and neuroprotective
CC activity. The method is also useful for monitoring a course of treatment
CC being administered to a patient e.g. active and passive immunization. The
CC methods are useful for prophylactic and therapeutic treatment of
CC Alzheimer's disease.
XX
SQ Sequence 10 AA;

Query Match 70.0%; Score 7; DB 22; Length 10;
Best Local Similarity 100.0%; Pred. No. 0.091;
Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 DAEFRHD 7
|||||||
Db 4 DAEFRHD 10

RESULT 12
AAB46216
ID AAB46216 standard; peptide; 10 AA.
XX
AC AAB46216;
XX
DT 04-APR-2001 (first entry)
XX
DE Human APP derived immunogenic peptide #12.
XX
KW Amyloid deposit; APP; Abeta; brain; human; clearing response; nootropic;
KW Fc receptor mediated phagocytosis; immunogenic response; neuroprotective;
KW amyloid precursor protein; Alzheimer's disease.
XX
OS Homo sapiens.
XX
PN WO200072880-A2.
XX
PD 07-DEC-2000.
XX
PF 26-MAY-2000; 2000WO-US14810.
XX
PR 28-MAY-1999; 99US-0322289.
XX
PA (NEUR-) NEURALAB LTD.
XX
PI Schenk DB, Bard F, Vasquez NJ, Yednock T;
XX
DR WPI; 2001-032104/04.
XX
PT Preventing or treating a disease associated with amyloid deposits,
PT especially Alzheimer's disease, comprises administering amyloid
PT specific antibody -
XX
PS Disclosure; Figure 19; 143pp; English.
XX
CC This invention describes a novel method of preventing or treating a
CC disease associated with amyloid deposits of amyloid precursor protein
CC (APP) Abeta fragments in the brain of a patient, which comprises
CC administering to the patient: (a) an antibody that binds to Abeta, the
CC antibody binds to an amyloid deposit and induces a clearing response (Fc
CC receptor mediated phagocytosis) against it (b) a polypeptide containing
CC an N-terminal segment of at least residues 1-5 of Abeta; or (c) an agent
CC that induces an immunogenic response against residues 1-3 to 7-11 of
CC Abeta. The products of the invention have nootropic and neuroprotective
CC activity. The method is also useful for monitoring a course of treatment
CC being administered to a patient e.g. active and passive immunization. The
CC methods are useful for prophylactic and therapeutic treatment of
CC Alzheimer's disease.
XX
SQ Sequence 10 AA;

Query Match 70.0%; Score 7; DB 22; Length 10;
Best Local Similarity 100.0%; Pred. No. 0.091;
Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 4 FRHDSGY 10
|||||||
Db 1 FRHDSGY 7

```
RESULT 13
AAW70868
ID   AAW70868 standard; peptide; 6 AA.
XX
AC   AAW70868;
XX
DT   04-FEB-1999  (first entry)
XX
DE   Beta-amyloid peptide to create a monoclonal antibody.
XX
KW   Beta-amyloid precursor protein; beta-APP; beta-amyloid peptide;
KW   antibody; amyloid deposit; Alzheimer's disease.
XX
OS   Synthetic.
OS   Homo sapiens.
XX
PN   WO9844955-A1.
XX
PD   15-OCT-1998.
XX
PF   09-APR-1998;   98WO-US06900.
XX
PR   09-APR-1997;   97US-0041850.
XX
PA   (MCIN/) MCINNIS P A.
PA   (MIND-) MINDSET LTD.
XX
PI   Chain DG;
XX
DR   WPI; 1998-594476/50.
XX
PT   Preventing or inhibiting progression of Alzheimer's Disease -
PT   comprises use of recombinant DNA encoding an antibody specific for
PT   the N- or C-terminus of an amyloid-beta peptide
XX
PS   Example 1; Page 47; 58pp; English.
XX
CC   The present sequence represents a peptide derived from beta-amyloid
CC   precursor protein (beta-APP, see AAW70863). The peptide is a
CC   beta-amyloid peptide and is used to produce a monoclonal antibody. The
CC   specification describes a method for prevention or inhibition of
CC   progression of Alzheimer's disease. The method comprises administering a
CC   composition comprising a recombinant DNA molecule containing a gene
CC   encoding a recombinant antibody end-specific for the N-terminus or the
CC   C-terminus of an amyloid-beta peptide, operably linked to a promoter
CC   which is expressed in the central nervous system. The recombinant
CC   antibody molecules prevent the accumulation of beta-amyloid peptides in
CC   the extracellular space, interstitial fluid and cerebrospinal fluid and
CC   the aggregation of such peptides into amyloid deposits in the brain.
CC   They also inhibit the progression of Alzheimer's disease by inhibiting
CC   the interaction of beta-amyloid peptides mediating Alzheimer's disease
CC   induced neurotoxicity and inhibiting the Alzheimer's disease induced
CC   complement activation and cytokine release involved in the inflammatory
CC   process.
XX
SQ   Sequence   6 AA;

  Query Match             60.0%;  Score 6;  DB 19;  Length 6;
  Best Local Similarity   100.0%;  Pred. No. 7.8e+05;
  Matches    6;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 DAEFRH 6
           ||||||
Db       1 DAEFRH 6


RESULT 14
AAB46209
ID   AAB46209 standard; peptide; 10 AA.
XX
AC   AAB46209;
XX
DT   04-APR-2001  (first entry)
XX
DE   Human APP derived immunogenic peptide #5.
XX
KW   Amyloid deposit; APP; Abeta; brain; human; clearing response; nootropic;
KW   Fc receptor mediated phagocytosis; immunogenic response; neuroprotective;
KW   amyloid precursor protein; Alzheimer's disease.
XX
OS   Homo sapiens.
XX
PN   WO200072880-A2.
XX
PD   07-DEC-2000.
XX
PF   26-MAY-2000; 2000WO-US14810.
XX
PR   28-MAY-1999;   99US-0322289.
XX
PA   (NEUR-) NEURALAB LTD.
XX
PI   Schenk DB,  Bard F,  Vasquez NJ,  Yednock T;
XX
DR   WPI; 2001-032104/04.
XX
PT   Preventing or treating a disease associated with amyloid deposits,
PT   especially Alzheimer's disease, comprises administering amyloid
PT   specific antibody -
XX
PS   Disclosure; Figure 19; 143pp; English.
XX
CC   This invention describes a novel method of preventing or treating a
CC   disease associated with amyloid deposits of amyloid precursor protein
CC   (APP) Abeta fragments in the brain of a patient, which comprises
CC   administering to the patient: (a) an antibody that binds to Abeta, the
CC   antibody binds to an amyloid deposit and induces a clearing response (Fc
CC   receptor mediated phagocytosis) against it (b) a polypeptide containing
CC   an N-terminal segment of at least residues 1-5 of Abeta; or (c) an agent
CC   that induces an immunogenic response against residues 1-3 to 7-11 of
CC   Abeta. The products of the invention have nootropic and neuroprotective
CC   activity. The method is also useful for monitoring a course of treatment
CC   being administered to a patient e.g. active and passive immunization. The
CC   methods are useful for prophylactic and therapeutic treatment of
CC   Alzheimer's disease.
XX
SQ   Sequence   10 AA;

  Query Match             60.0%;  Score 6;  DB 22;  Length 10;
  Best Local Similarity   100.0%;  Pred. No. 1.2;
  Matches    6;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 DAEFRH 6
           ||||||
Db       5 DAEFRH 10


RESULT 15
AAB46217
ID   AAB46217 standard; peptide; 10 AA.
XX
AC   AAB46217;
XX
DT   04-APR-2001  (first entry)
XX
DE   Human APP derived immunogenic peptide #13.
XX
KW   Amyloid deposit; APP; Abeta; brain; human; clearing response; nootropic;
KW   Fc receptor mediated phagocytosis; immunogenic response; neuroprotective;
KW   amyloid precursor protein; Alzheimer's disease.
XX
OS   Homo sapiens.
XX
PN   WO200072880-A2.
XX
```

PD 07-DEC-2000.
XX
PF 26-MAY-2000; 2000WO-US14810.
XX
PR 28-MAY-1999; 99US-0322289.
XX
PA (NEUR-) NEURALAB LTD.
XX
PI Schenk DB, Bard F, Vasquez NJ, Yednock T;
XX
DR WPI; 2001-032104/04.
XX
PT Preventing or treating a disease associated with amyloid deposits,
PT especially Alzheimer's disease, comprises administering amyloid
PT specific antibody -
XX
PS Disclosure; Figure 19; 143pp; English.
XX
CC This invention describes a novel method of preventing or treating a
CC disease associated with amyloid deposits of amyloid precursor protein
CC (APP) Abeta fragments in the brain of a patient, which comprises
CC administering to the patient: (a) an antibody that binds to Abeta, the
CC antibody binds to an amyloid deposit and induces a clearing response (Fc
CC receptor mediated phagocytosis) against it (b) a polypeptide containing
CC an N-terminal segment of at least residues 1-5 of Abeta; or (c) an agent
CC that induces an immunogenic response against residues 1-3 to 7-11 of
CC Abeta. The products of the invention have nootropic and neuroprotective
CC activity. The method is also useful for monitoring a course of treatment
CC being administered to a patient e.g. active and passive immunization. The
CC methods are useful for prophylactic and therapeutic treatment of
CC Alzheimer's disease.
XX
SQ Sequence 10 AA;

Query Match 60.0%; Score 6; DB 22; Length 10;
Best Local Similarity 100.0%; Pred. No. 1.2;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 5 RHDSGY 10
||||||
Db 1 RHDSGY 6

Search completed: April 21, 2003, 12:10:01
Job time : 29.3333 secs